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ABSTRACT

This publication offers a basic introduction to the Federal Information Exchange System (FIXS), a set of procedures for periodically collecting, processing, and publishing data on federal and state expenditures for each program listed in the "Catalog of Federal Assistance Programs." FIXS is designed for use in conjunction with the "Catalog of Federal Assistance Programs" and with "Community Profiles," a federal publication that provides socioeconomic profiles of each county based on more than 1,000 statistical indicators. FIXS is intended to improve public resource management at all government levels by providing policy-makers with information on what state, local, and federal programs are operating in each state and how federal agencies are distributing aid throughout the state. (JG)

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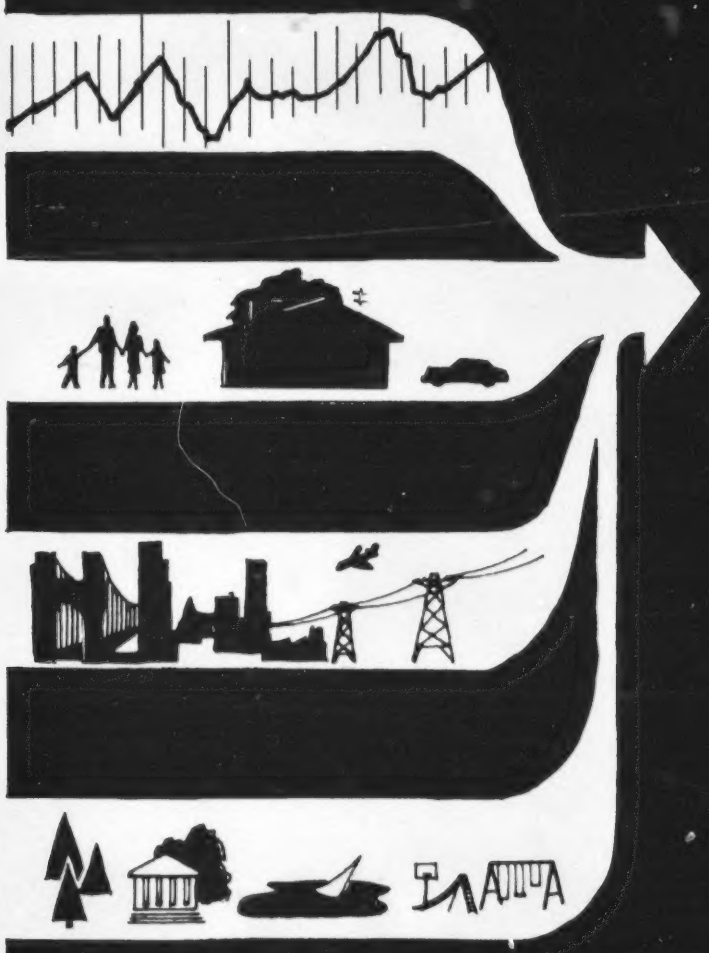
An Introduction to the

FEDERAL INFORMATION EXCHANGE SYSTEM

APRIL 1968



EA 008 550

Prepared by
Stanford Research Institute
for the
OFFICE OF ECONOMIC OPPORTUNITY

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AN INTRODUCTION TO THE FEDERAL INFORMATION EXCHANGE SYSTEM

THE OFFICE OF ECONOMIC OPPORTUNITY
WASHINGTON, D.C.

VINCENT DE SANTI AND D. SAM SCHEELE
STANFORD RESEARCH INSTITUTE

April 1968

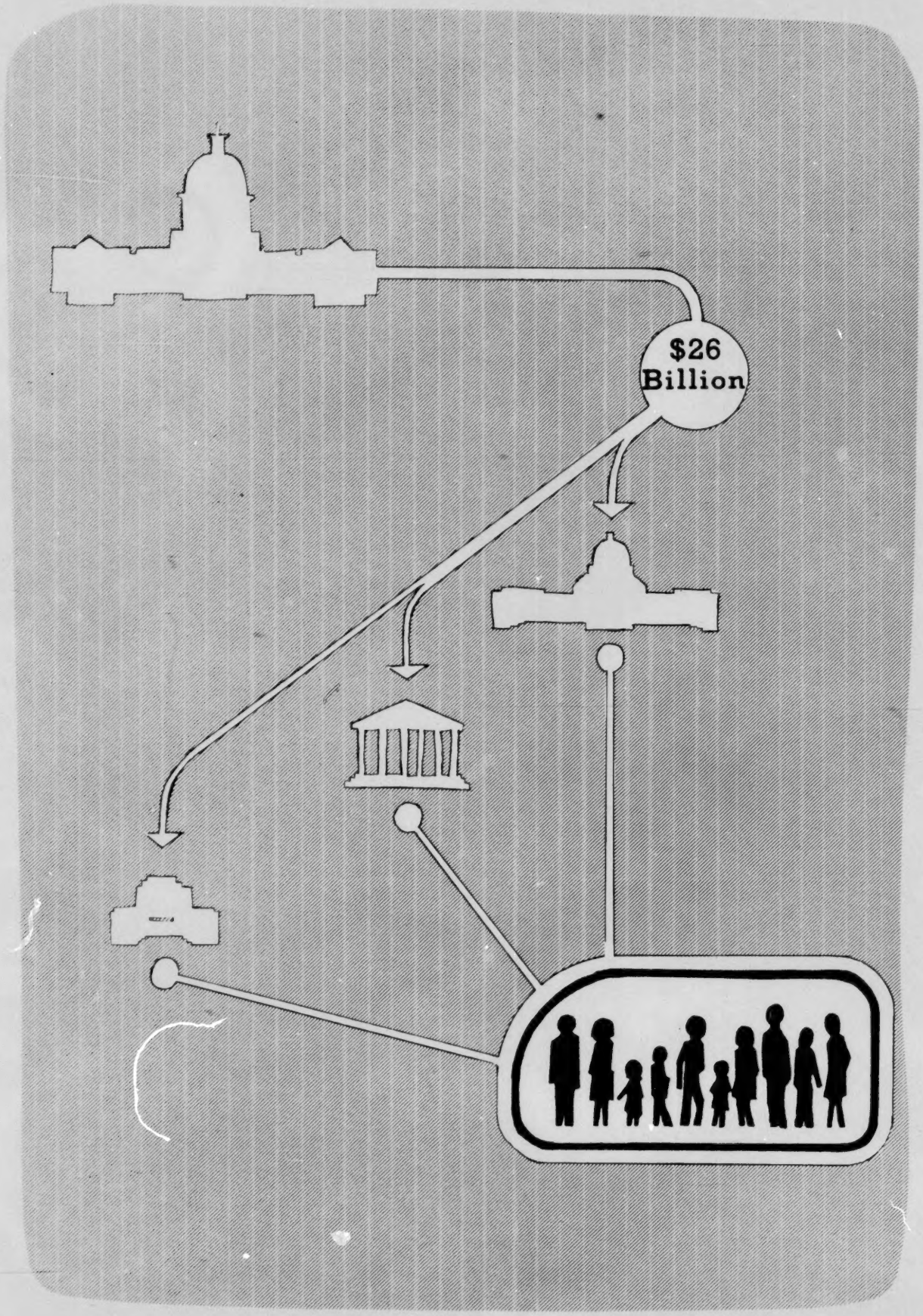
We must create new concepts of cooperation—a creative federalism —between the national capitol and the leaders of local communities.

Lyndon B. Johnson, President, 1964

This is an introduction to FIXS—the Federal Information Exchange System—conceived in the War on Poverty and developed along the concept of creative federalism. FIXS is broad in scope, embracing all 50 states. But with a simple approach it seeks to establish a working partnership among federal, state, and local levels of government.

FIXS was created in the Information Center of the Office of Economic Opportunity, which is responsible for developing and operating the system. This development anticipates an integrated reporting network concerned with the total impact of all levels of government spending on the nation's socio-economic welfare. The expansion and refinement of FIXS are now receiving impetus from the Vice President, the Economic Opportunity Council, the Bureau of the Budget, and the various users of the system in the states and in federal agencies. These supporters have already found FIXS useful as an information tool for better planning and budgeting of their activities.

Stanford Research Institute, as contractor to OEO, has assisted in formulating and expanding FIXS. Now SRI is helping selected states establish a capability for participating in FIXS. Such participation anticipates a nationwide exchange of information on fiscal affairs and program accomplishment. SRI welcomes this opportunity to introduce this system for the benefit of those who may wish to participate in it.


$26
Billion

"Well, in our country," said Alice, still panting a little, "you'd generally get to somewhere else—if you ran very fast for a long time, as we've been doing."
"A slow sort of country!" said the Queen. "Now here, *you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!"*

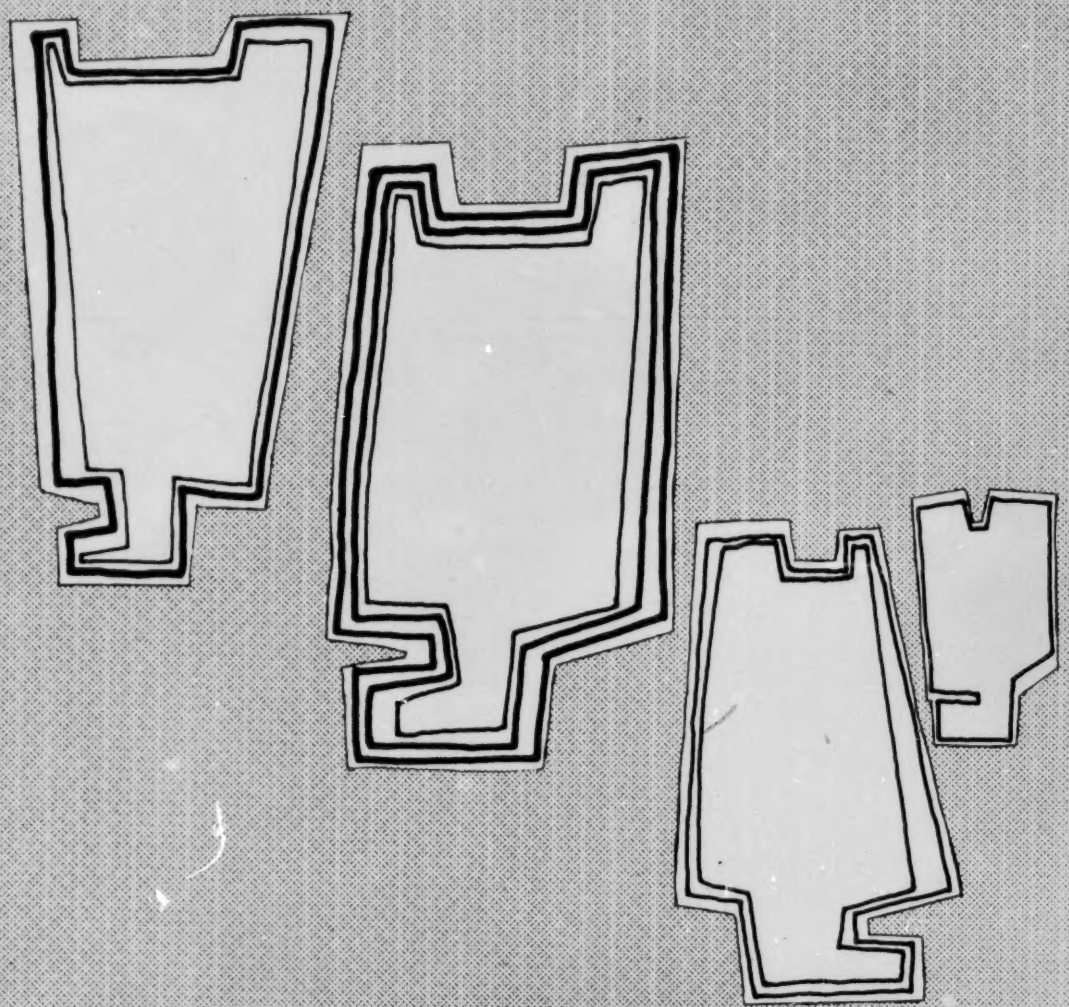
Lewis Carroll, Through the Looking-Glass

THE MULTIBILLION DOLLAR RACE

Federal, state, and local governments are all racing to overcome the misery, discontent, and myriad problems that plague our U.S. cities and rural regions. The race is harder and faster than ever before—federal expenditures on grants-in-aid alone jumped from $3.8 billion in 1965 to $26 billion in 1968.

Some of these expenditures bypass the state governments and go directly to local institutions and to individuals. Many are categorical grants, but federal assistance will increasingly take the form of block grants to states and local communities. The best routes and the best timing for these expenditures of government resources are not always discernible; thus we cannot yet tell which path will lead to the best solutions of the problems identified. Governments must pace themselves and conserve their physical resources, knowing when to let go or when to hold back, expending "energies" at the right moment in the proper degree to overtake and overcome the problems out front.

The control of these total resources so that they can be brought to bear and commanded efficiently in this critical race is what FIXS is about.



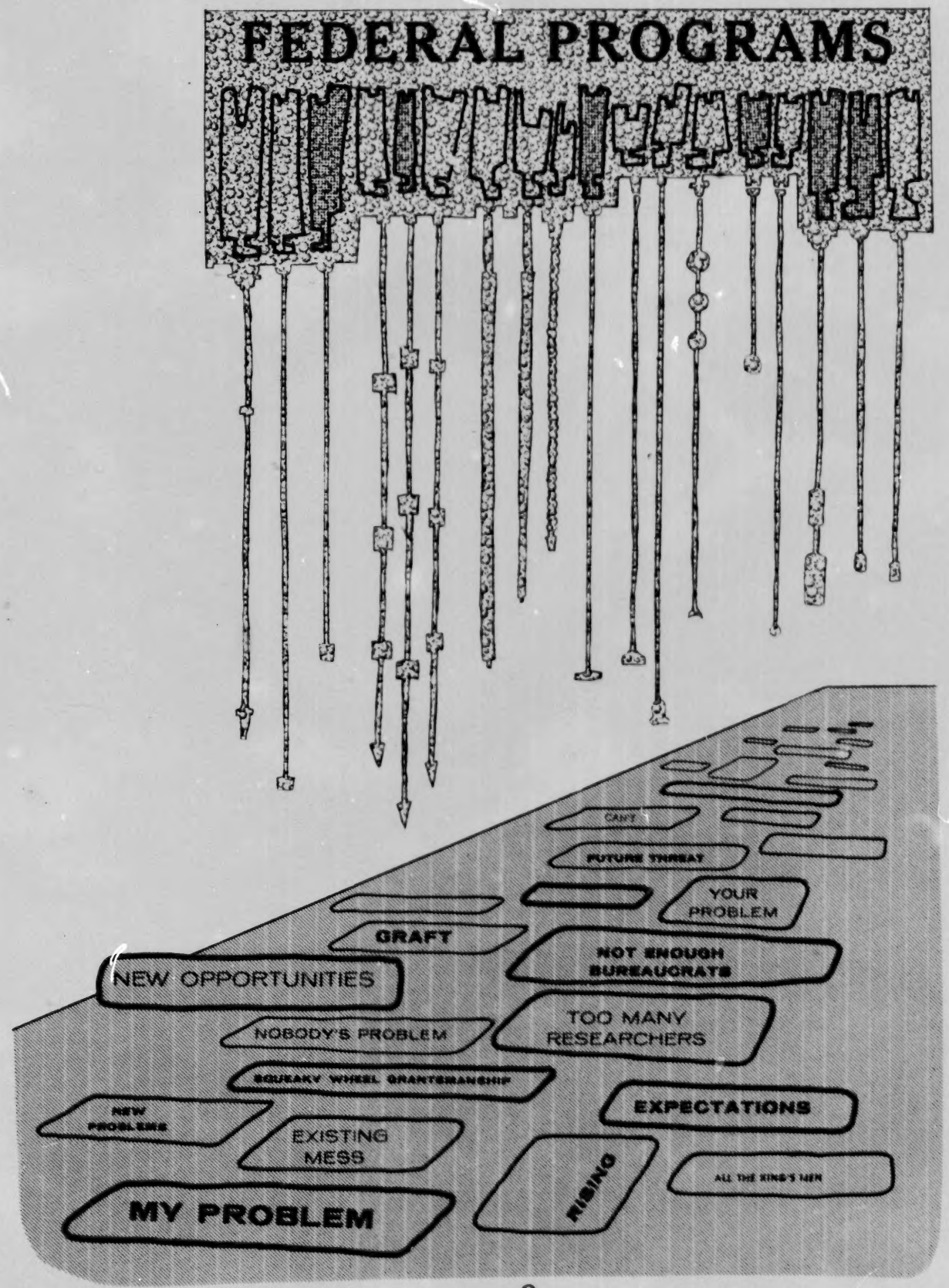
typical programs

RESOURCES ARE ALLOCATED BY PROGRAMS . . .
FIXS MEASURES PROGRAMS

The government has vast resources which can be expended to meet the needs of society. But how do we perceive and classify this resource expenditure, and in what context do we evaluate its allocation among those who need it (the "interesteds")? In its approach to accounting for government allocation of resources, FIXS looks at government expenditure by category of activity. We call these categories "programs"—and FIXS measures programs. It is sometimes easier to define a program (as we shall later) than it is to measure one in operation, for we have found that semantic rationality often clashes with administrative rationality. We use "program" throughout this presentation to denote a FIXS reporting category, so that repeated use of the term will lead to familiarity with its special characteristics.

The performance of any social system consists of activities to satisfy the interests of various "interesteds" by producing various kinds, qualities, and quantities of output . . . usuing inputs efficiently . . . and doing all these in a manner that conforms with various codes of behavior and varying conceptions of technical and administrative rationality.

Bertram M. Gross, "Social Systems Accounting," 1968


FEDERAL PROGRAMS
CAN'T
FUTURE THREAT
YOUR PROBLEM
GRAFT
NOT ENOUGH BUREAUCRATS
NEW OPPORTUNITIES
TOO MANY RESEARCHERS
NOBODY'S PROBLEM
SQUEAKY WHEEL GRANTSMANSHIP
NEW PROBLEMS
EXPECTATIONS
EXISTING MESS
RISING
ALL THE KING'S MEN
MY PROBLEM

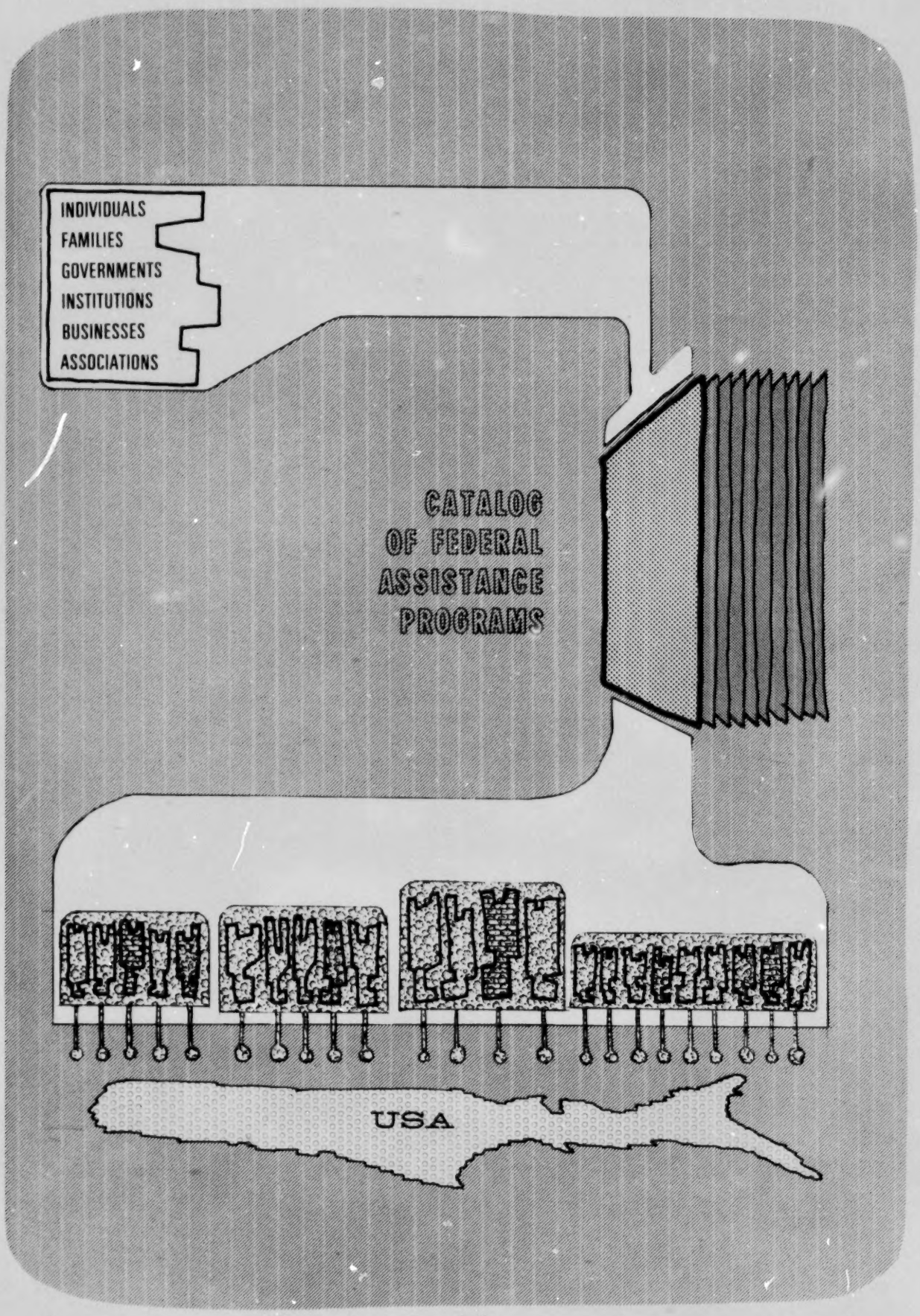
. . . new federal machinery must be created to meet the new national responsibilities of urbanization . . . to help develop sound national urban policies; to insure smooth administration of urban programs; and to secure effective federal-state-local coordination of . . . partnership programs.

Bernard F. Hillenbrand, 1965

MANY PROBLEMS, BUT NO MACHINERY

It is clear that we have problems. In the cities, millions live without hope, ill-fed, ill-housed, ill-clothed, ill-educated. In rural areas such as Appalachia, we have dying towns, idle coal miners, shacks, land erosion caused by strip mining, and yearly floods.

Yet the United States as a whole enjoys the highest level of prosperity ever known. There are many varieties of help, many different sources, and many programs, but they are not integrated into a smoothly operating machinery—there is much waste and duplication of effort. We have some federal programs to create new farmland and other programs to take farmland out of production. We have federal programs to give food surplus to needy foreigners, and others that restrict this surplus to needy Americans. We have federal policies to encourage local planning, but no policy requiring federal construction to comply with local planning. We institute federal programs to encourage local long-range capital improvement budgeting, and have no policy requiring federal agencies to do the same. Many programs are too restrictive in setting forth the qualifications of applicants, while others are not restrictive enough. Yet other programs are so complex in their application procedures that often the glib "grantsmanship" professionals win out over less articulate but more needy applicants.


INDIVIDUALS
FAMILIES
GOVERNMENTS
INSTITUTIONS
BUSINESSES
ASSOCIATIONS
CATALOG
OF FEDERAL
ASSISTANCE
PROGRAMS
USA

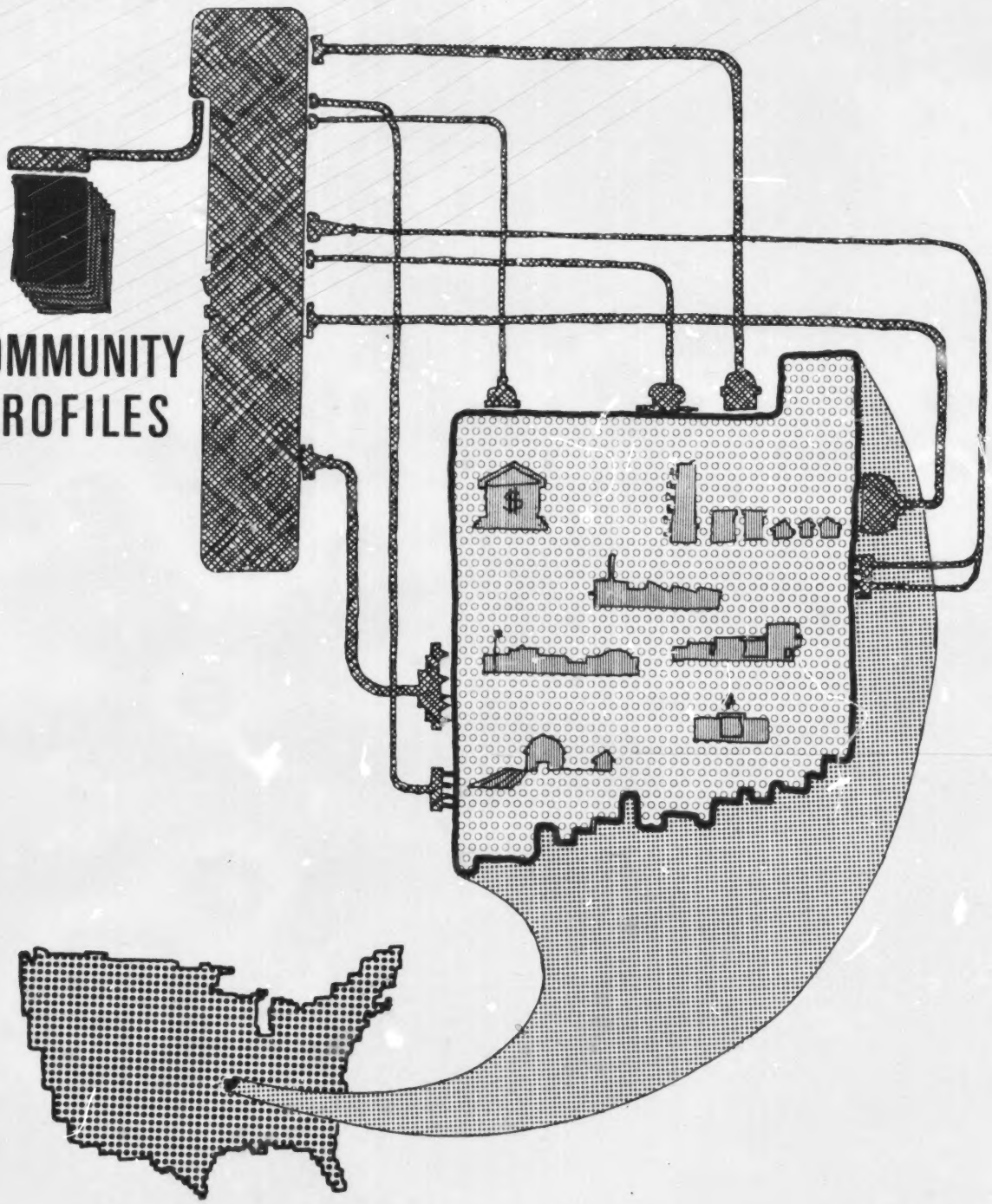
THE OEO CATALOG—WHAT'S AVAILABLE TO COMMUNITIES

The OEO Information Center realized that we must first assess the extent and variety of federal assistance available to people and communities before we could begin to create economic opportunity. So, early in 1965, OEO compiled the *Catalog of Federal Programs for Individual and Community Improvement*, a document that includes under one cover information on more than 260 programs funded by 16 federal departments and agencies.

In 1967 the catalog was expanded and revised so that it included *all* federal assistance programs. This new *Catalog of Federal Assistance Programs* describes 459 programs from 37 federal agencies. It contains information on the nature and purpose of each program, who is eligible to apply for assistance, availability of publications that provide further detail, legislative authorization for the program, and the federal agency that administers the program.

The Federal dollar is a means toward local ends rather than an end in itself.

From The Vice President's Handbook for Local Officials

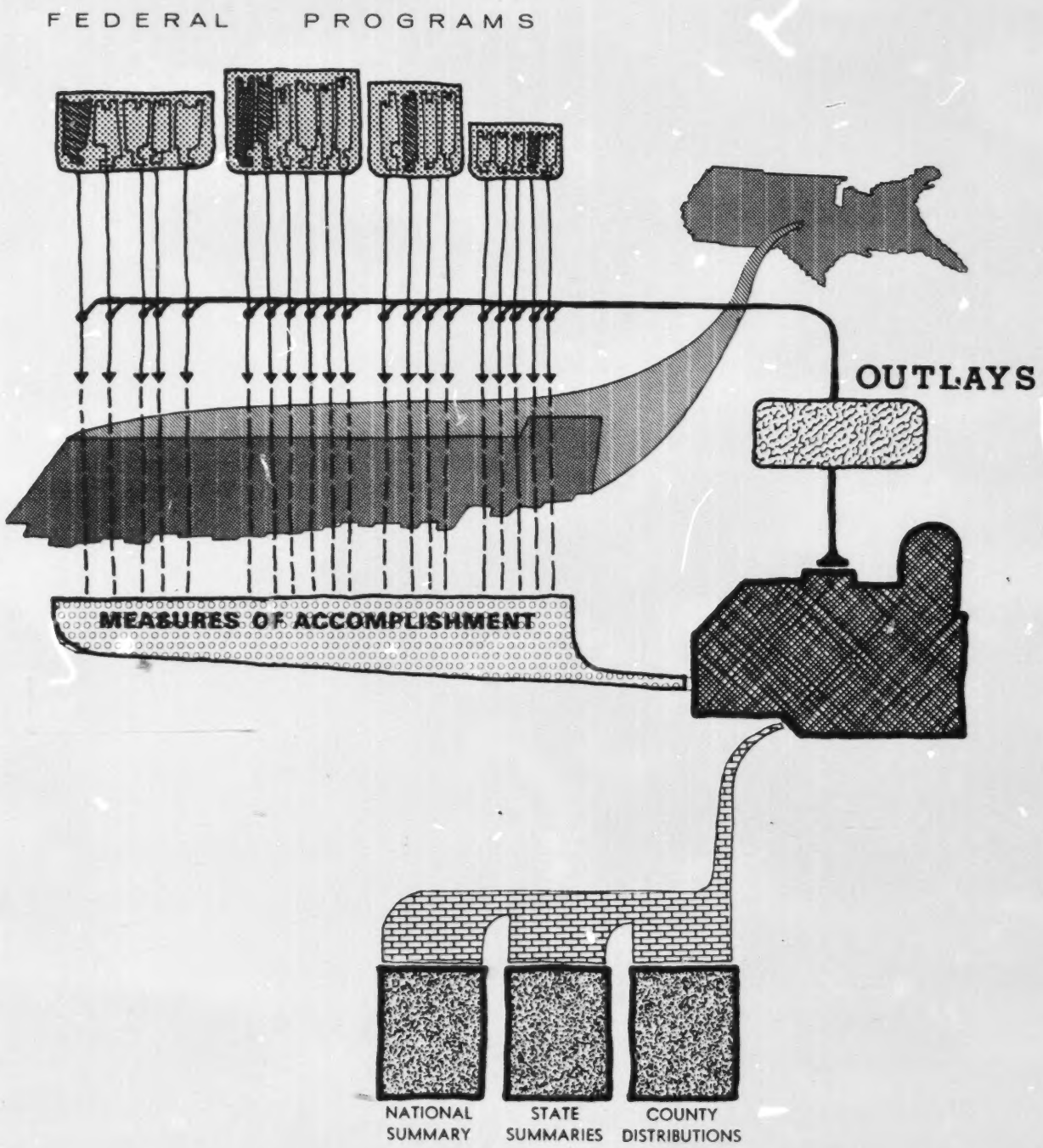

COMMUNITY
PROFILES

I know that statistics and details of the economy may sometimes seem dry, but . . . statistics are really a story of all of us. And these statistics tell whether we are going forward or standing still or going backwards; they tell whether an unemployed man can get a job, or whether a man who has a job can get an increase in salary or own a house, or whether he can retire in security or send his children to college. These are the people and the things behind statistics.

John F. Kennedy, 1962

OEO PROFILES—YARDSTICKS OF COMMUNITY WELL-BEING

OEO also recognized that we needed a sound approach for the measurement of social and material well-being. So it devised a means for "tuning" into every county in the nation. The agency developed a list of more than 1,000 statistical indicators that would comprehensively describe the socio-economic status of each county. These data elements were compiled into what is known as the *Community Profiles*. The profiles are assessments of such social and economic characteristics as demography, employment, education, and geography, and they provide appropriate indicators of strengths and weaknesses, with numerous comparisons to national norms.



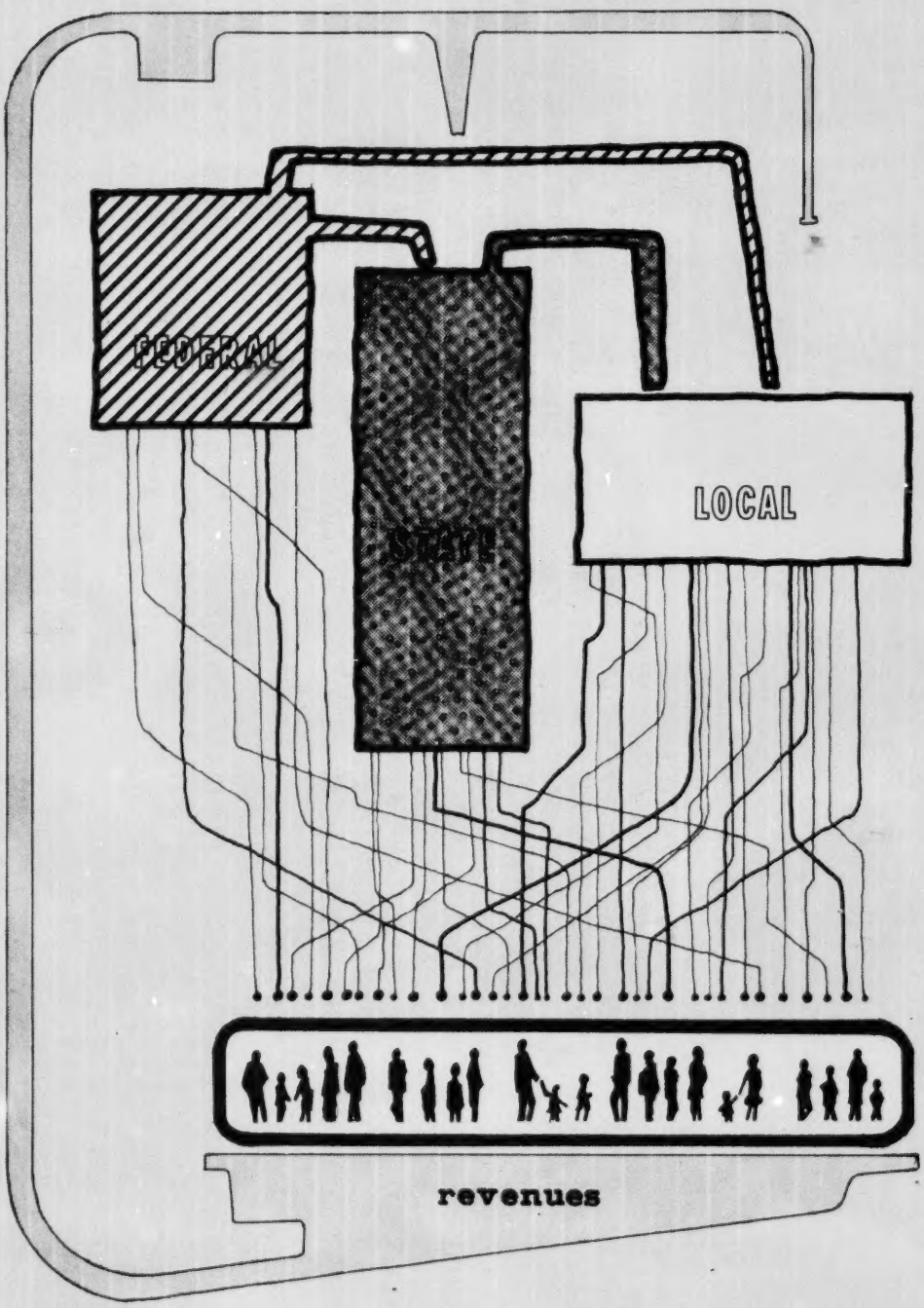
FIXS Reports

FIXS—WHAT'S HAPPENING IN COUNTIES AND CITIES

With the *Catalog* to provide an array of programs—a framework of reporting categories—by which dollar expenditures can be reported, and with the *Community Profiles* to indicate where dollar outlays are needed, OEO then devised a system for determining how much of the federal dollar is being spent for assistance, and where this money is going. This *Federal Information System* is a set of evolving, interrelated procedures for periodically collecting, processing, storing, and publishing data on federal and state outlays for each program in the federal catalog according to geographic distribution of funds by each county and by each city with a population of 25,000 or more.

. . . the temptations of money are so great that local governments will ride roughshod over the interests of the people to get it.

Roger Starr, The Living End: The City and its Critics, *1966*

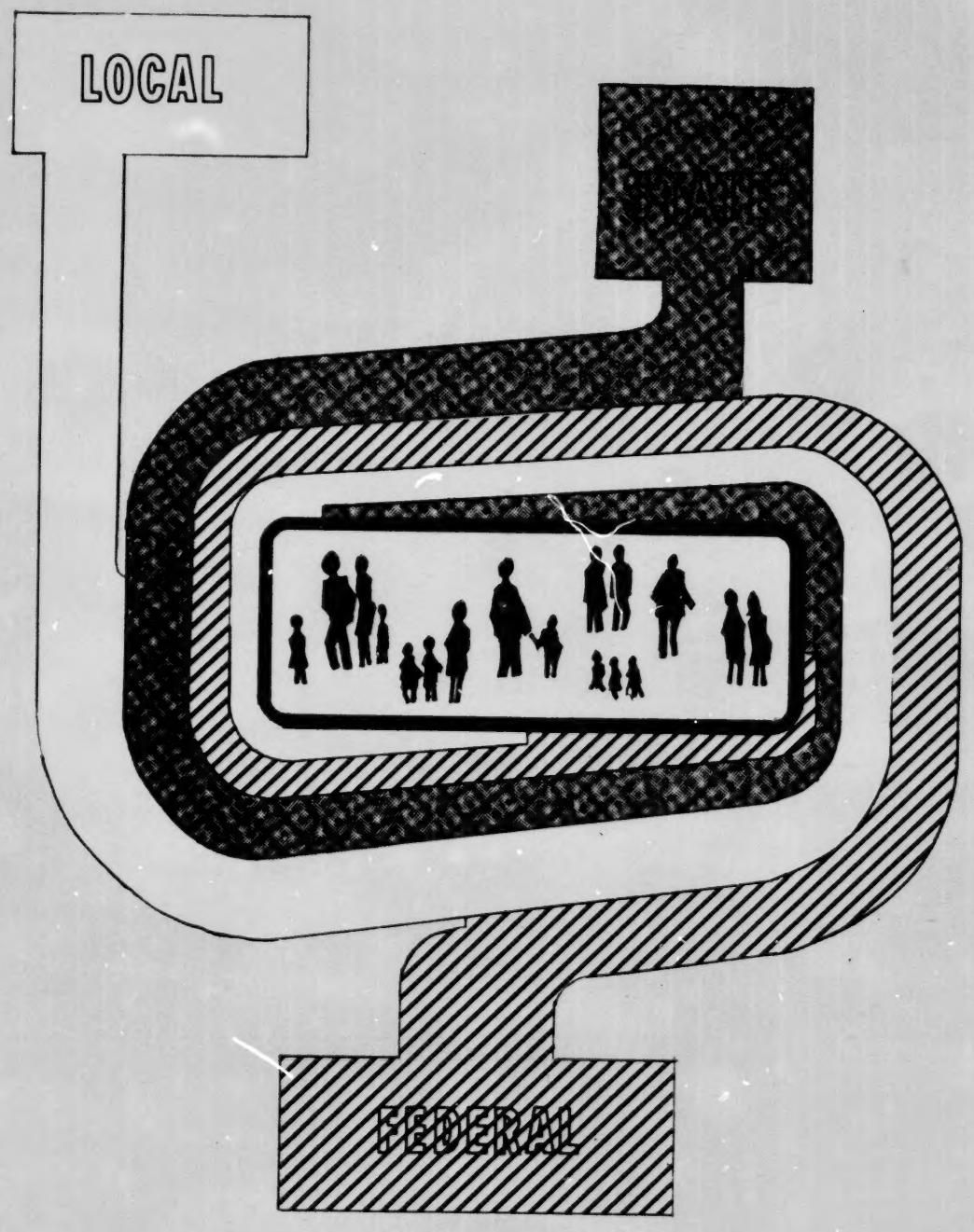

FEDERAL
STATE
LOCAL
revenues

For many of the important topics on which social critics blithely pass judgment, and on which policies are made, there are no yardsticks by which to know if things are getting better or worse.

Raymond A. Bauer, Social Indicators, *1966*

HOW TO STEER THE FEDERAL DOLLAR TO THE GREATEST NEED

Until the 1965 *Catalog* was issued and FIXS was established, federal granting agencies and the receiving states found it difficult to assess the grants-in-aid picture on a program-by-program, community-by-community basis, especially in cases where federal agencies provided assistance directly to communities, institutions, or individuals without state government participation. Indeed, it was not possible for even the granting agencies to determine which other federal programs were serving the needs in a particular area of interest. Thus there was no assurance that the federal dollar was being applied to the greatest need and there was no good indicator of other needs that should perhaps take precedence.


LOCAL
FEDERAL

BETTER RESOURCES MANAGEMENT THROUGH FIXS

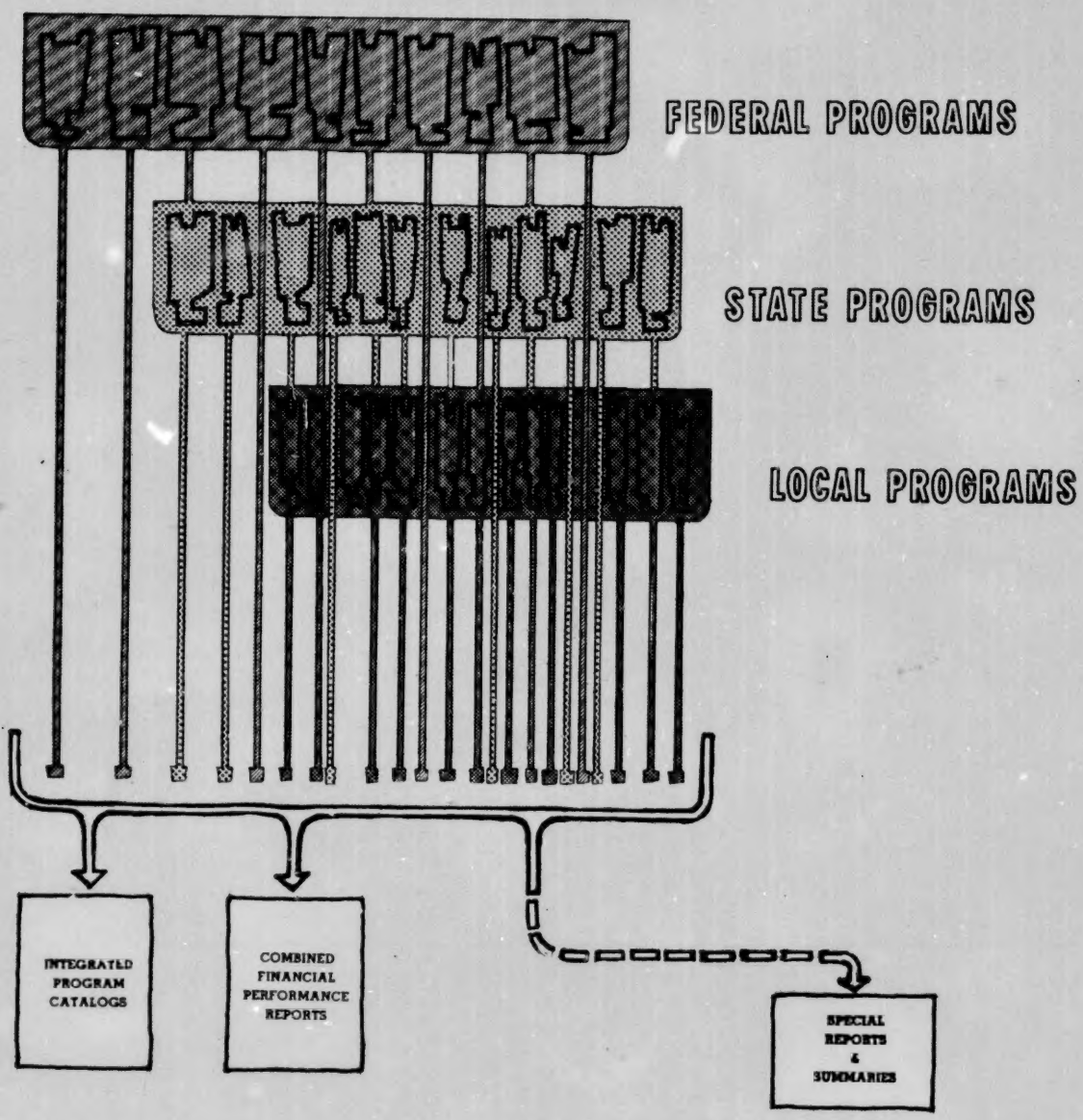
To use a medical analogy, FIXS, when used in combination with the *Catalog of Federal Assistance Programs* and the *Community Profiles*, affords planners and administrators three kinds of data on which to base plans and decisions for social rehabilitation and therapy.

- The *Catalog* tells what medical aid is available.
- The *Community Profiles* diagnose the state's socioeconomic well-being.
- The *FIXS* correlates and reports the levels of treatment being administered.

It is hoped that public resource management at *all* government levels can be made more effective through the use of comparable information regarding total expenditures by state and local governments. The delineation of aid can be clearly traced. Policymakers and managers will know exactly what the state and local programs are, what the federal programs are, and how the federal agencies are distributing aid throughout a state. The overall integration and coordination can lead only to the elimination of duplication and waste.

The Great Society asks not only how much but how good; not only how to create wealth but how to use it; not only how fast we are going, but where we are headed. It proposes as the first test for a nation: the quality of its people.

Lyndon B. Johnson, President, 1965


FEDERAL PROGRAMS
STATE PROGRAMS
LOCAL PROGRAMS
INTEGRATED PROGRAM CATALOGS
COMBINED FINANCIAL PERFORMANCE REPORTS
SPECIAL REPORTS & SUMMARIES

The problems that confront us demand the utmost in commitment and cooperation. Their solution requires a partnership not only between levels of government but between the public and private sectors of our economy. The times require a partnership of responsibility, a partnership in achievement.

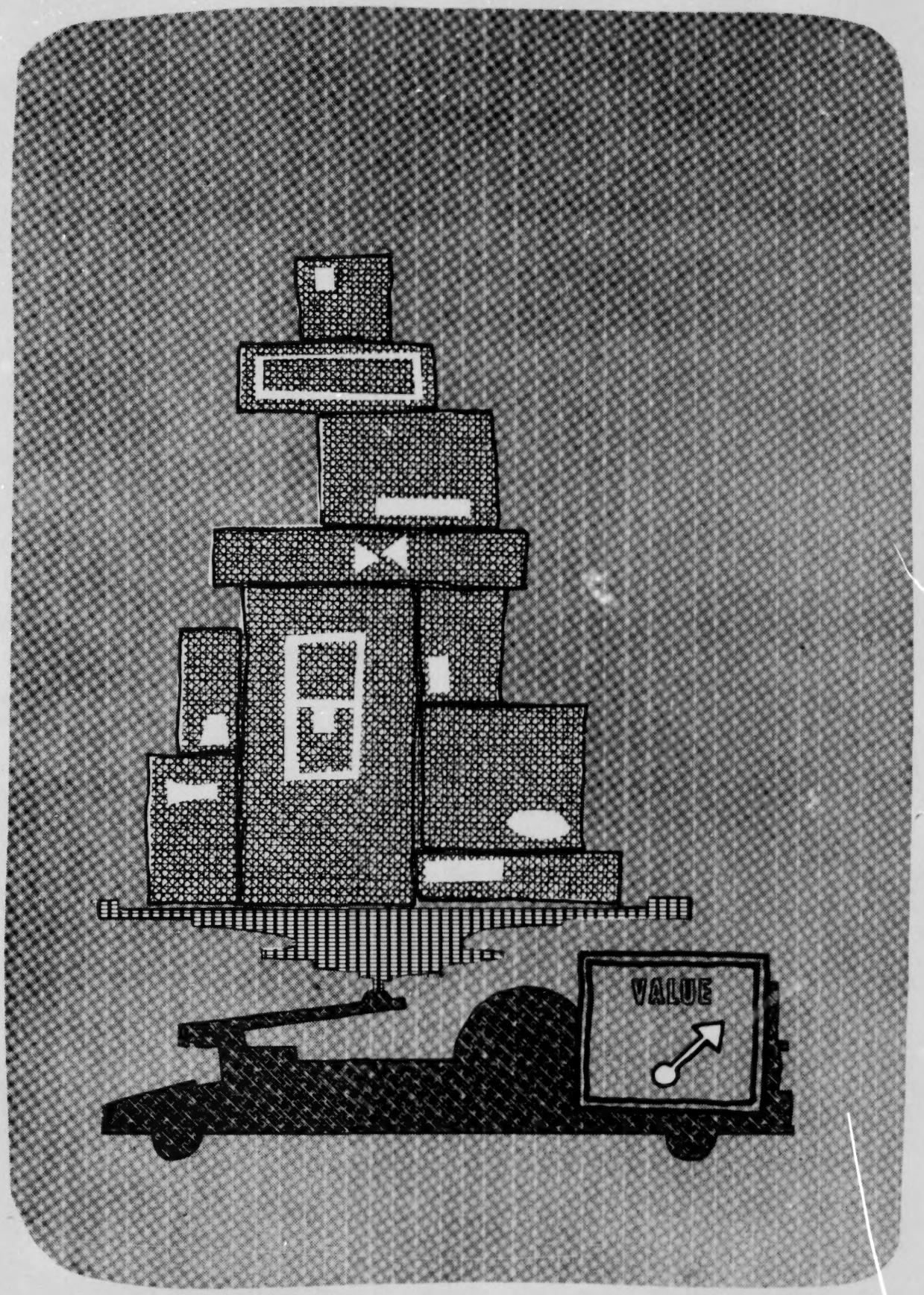
Hubert H. Humphrey, Vice President, 1967

PRODUCTS OF FIXS PARTNERSHIP

Establishment of a series of FIXS outputs does not make for automatic program evaluation. More often than not, a particular FIXS product is but one thread in a fabric of evidence for evaluating the impact of a program, but it is a vital thread.

FIXS products enable managers to distinguish clearly among all the programs that are operated within a state, federal programs that bypass the state level and go directly to individuals or organizations, state programs that operate independently or jointly with the federal government, and local programs that operate independently or jointly with state and federal assistance. FIXS can provide special catalogs of state programs; fiscal reports that provide new insights into combined spending at federal, state, and local levels; and special "on-demand" reports for legislators, administrators, and planners that can indicate spending for a particular program, by a particular agency, in a particular county or city, anywhere in a state.

The products of the OEO Information Center are not panaceas for all of our perplexing social and economic problems. It is the goal of the Information Center to ensure that information about governmental resource expenditure is available to all who need to know and to make this information have bearing on the amount, the location, and the accomplishment of resource expenditure so that the impact of programs on the social and economic welfare of the country can be assessed.


VALUE

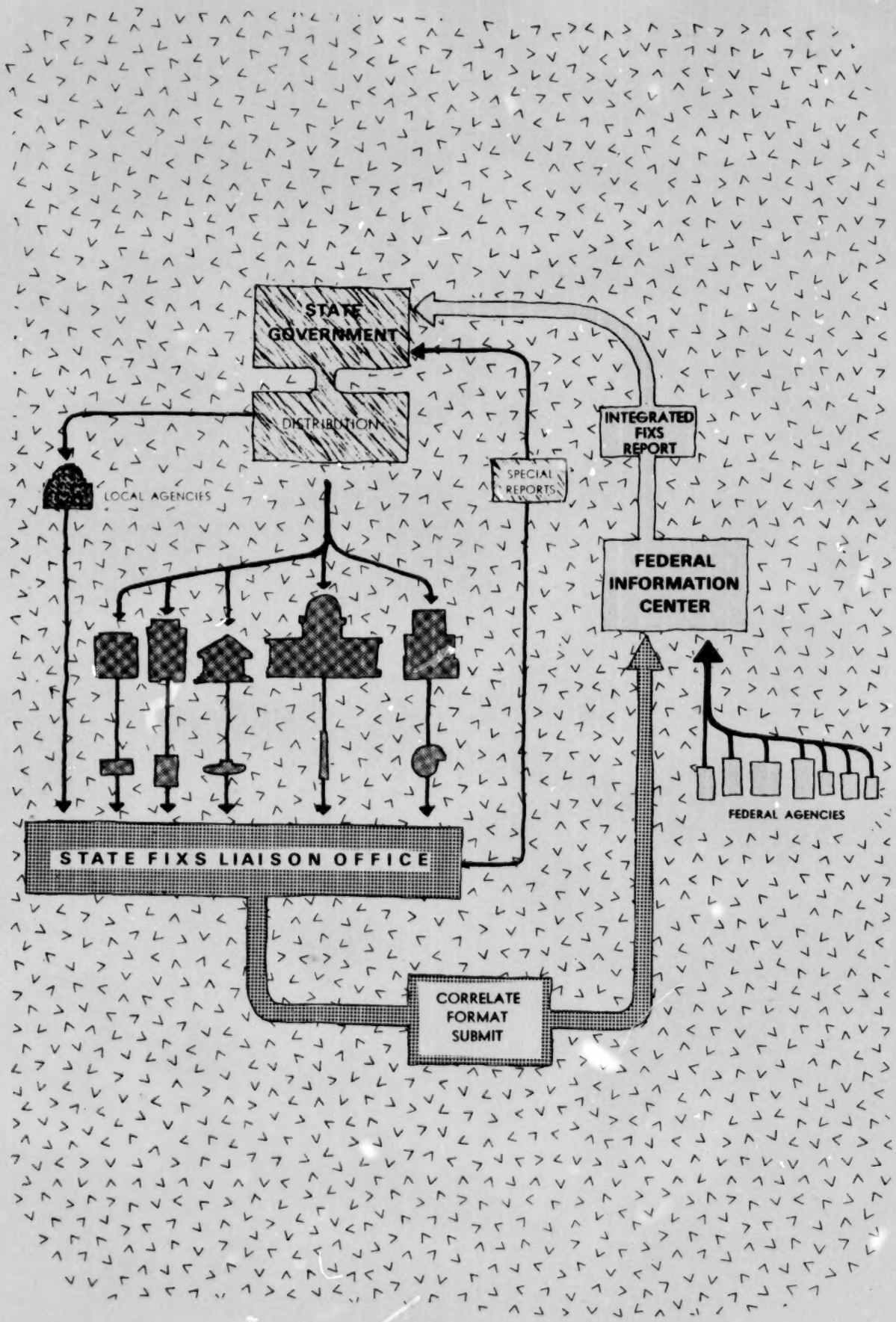
VALUE OF FIXS TO THE STATES

The importance of FIXS extends well beyond the evaluation of state and federal programs. Its immediate effect should be to develop a more rational use of statistical and fiscal information in the allocation of public resources. The more far-reaching effect is to lay the groundwork for the type of information system that must evolve ultimately for the appropriate evaluation of great social enterprises.

FIXS provides state officials with a means for making better decisions and for better planning of state resources. Participation in FIXS gives states a low-cost opportunity to build a functionally classified arrangement of state activities that will serve as a framework for development of planning, programming, and budgeting systems. With this opportunity, states can also make actual tests of this framework in the government environment—at low cost, with minimal difficulty, and under existing operating procedures—to evaluate user reactions to FIXS and to learn how the system impinges on current fiscal practices in the state.

More specifically, FIXS can help state governors and their executive staffs make maximum use of federally supported programs; it should help legislators by pointing out local needs and effects of federal and other out-of-state assistance in counties and cities; it will provide state and local planners with information that will enable them to reassess short- and long-term plans and to make quantitative program evaluations; and it will help state and local administrators and federal program coordinators respond to special legislative inquiries and compare state efforts with those of federal, local, and other state governments.

> *It is common opinion that techniques for collecting, ordering, and analyzing social data have developed more rapidly than has been the ability of society in general, and of planning and operational units of organization in particular, to take advantage of this knowledge in ordering social affairs.*
>
> *Albert D. Biderman,*
> Social Indicators and Goals, *1966*

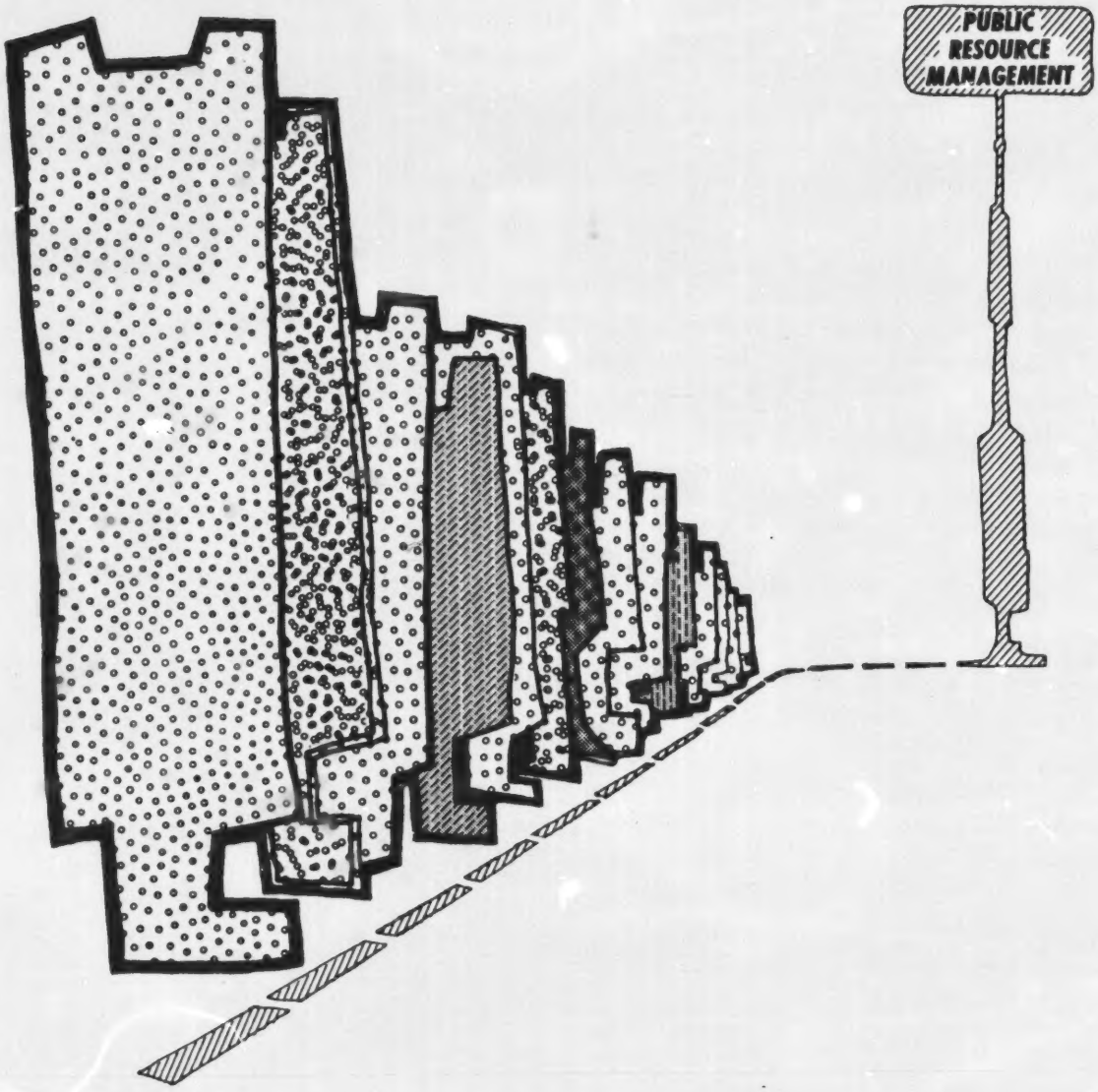

STATE GOVERNMENT
DISTRIBUTION
LOCAL AGENCIES
INTEGRATED FIXS REPORT
SPECIAL REPORTS
FEDERAL INFORMATION CENTER
FEDERAL AGENCIES
STATE FIXS LIAISON OFFICE
CORRELATE FORMAT SUBMIT

To improve our ability to chart our progress, I have asked the Secretary to establish within his office the resources to develop the necessary social statistics and indicators . . . with these yardsticks, we can better measure the distance we have come and plan for the way ahead.

Lyndon B. Johnson, President March 1, 1966

OVERALL CONCEPT OF FIXS

FIXS is a management information system directed at improving the data base for better management and allocation of public resources. Information flow throughout a state FIXS network begins at the state's spending units. Data inputs originate from each participating state agency in the form of punchcards, magnetic tape, or sheets of paper. The inputs are submitted to the state information agency, where they are edited, standardized, keypunched, and processed by computer. The computer stores these records in a master magnetic tape file, a duplicate of which is transmitted to the OEO Information Center. OEO's data inputs from the federal agencies are processed and merged with the state's master file tape to produce an integrated file tape for return to the state. The state may then use the integrated tapes for providing periodic and special reports to meet the needs of state officials.


PUBLIC
RESOURCE
MANAGEMENT

FIXS OBJECTIVES AND REQUIREMENTS

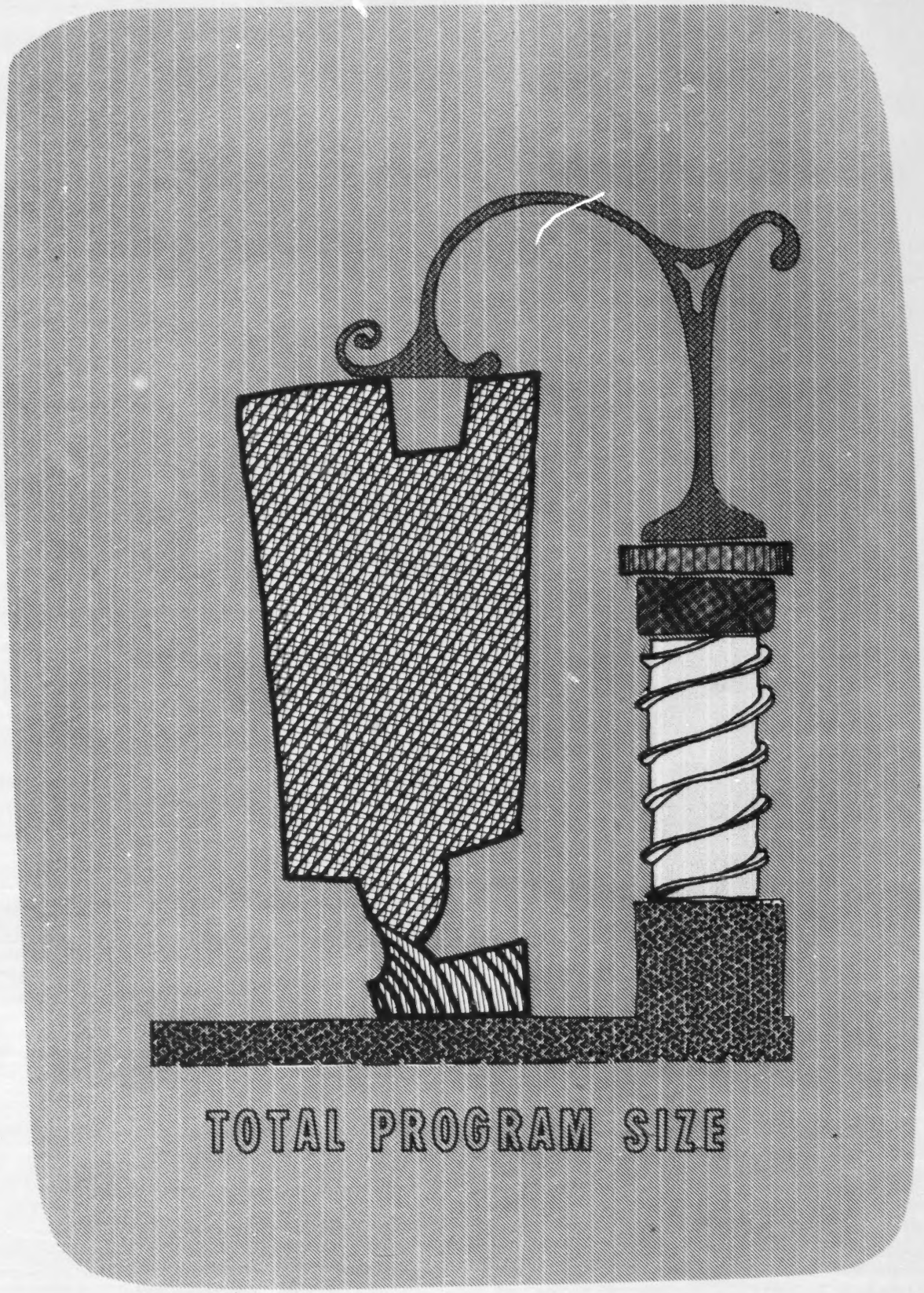
FIXS must be versatile enough to collect, analyze, and disseminate fiscal and statistical information that satisfies the Congress, the Bureau of the Budget, the federal agencies, and the state agencies. It must be capable of reporting obligations and disbursements for federal and state programs by geographic area.

The budget process aims at determining what mixture of goods and services most contributes to the general welfare. FIXS aims at helping management decide, on the basis of relevant and timely information, how to allocate human and natural resources. This fiscal and statistical information has three major elements.

- Total program size
- Expenditure or outlays (activity to date)
- Output units of measure

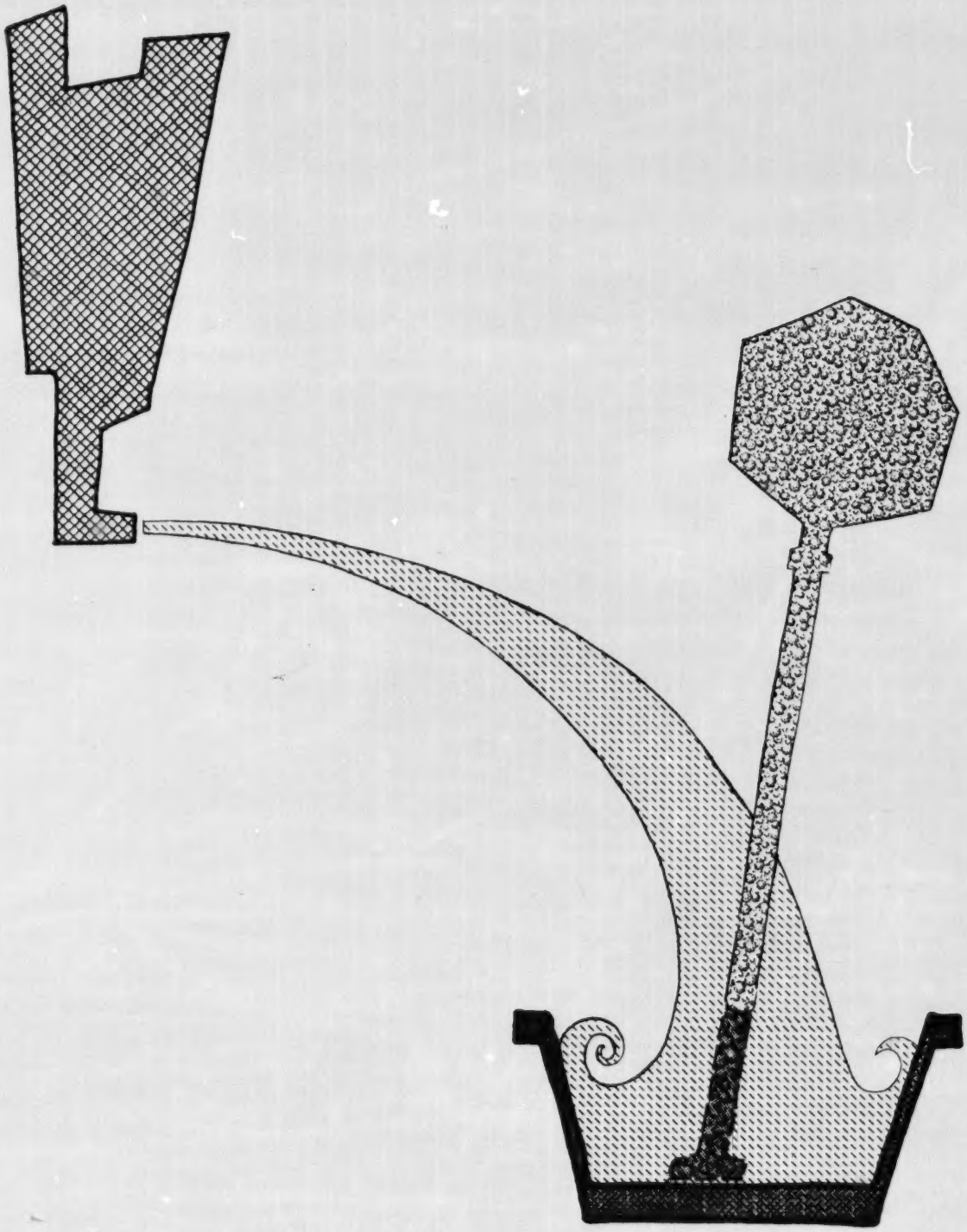
Economic distress will teach men, if anything can, that realities are less dangerous than fancies, that fact-finding is more effective than fault-finding.

Carl L. Becker


TOTAL PROGRAM SIZE

TOTAL PROGRAM SIZE

Total program size is a one-year forward look at the number of dollars obligated or budgeted to a program. This item of information is reported by each state agency during the first quarter of the fiscal year or when a new program is established. The amount may be arrived at by using the best information available. If total program size cannot be estimated in advance, figures derived from the past year's expenditure may be used. In programs that are jointly funded by state, federal, and local resources, total program size is the estimate of total funds from all these sources.



ACTIVITY YEAR TO DATE-QUARTERLY

YEAR-TO-DATE EXPENDITURES

Year-to-date expenditures are the dollar amounts of state, federal, and local expenditures for a program reported cumulatively at the end of each fiscal quarter; the fourth quarter represents total outlay in the program for the year. These figures are reported quarterly for counties and for cities over 25,000 population.

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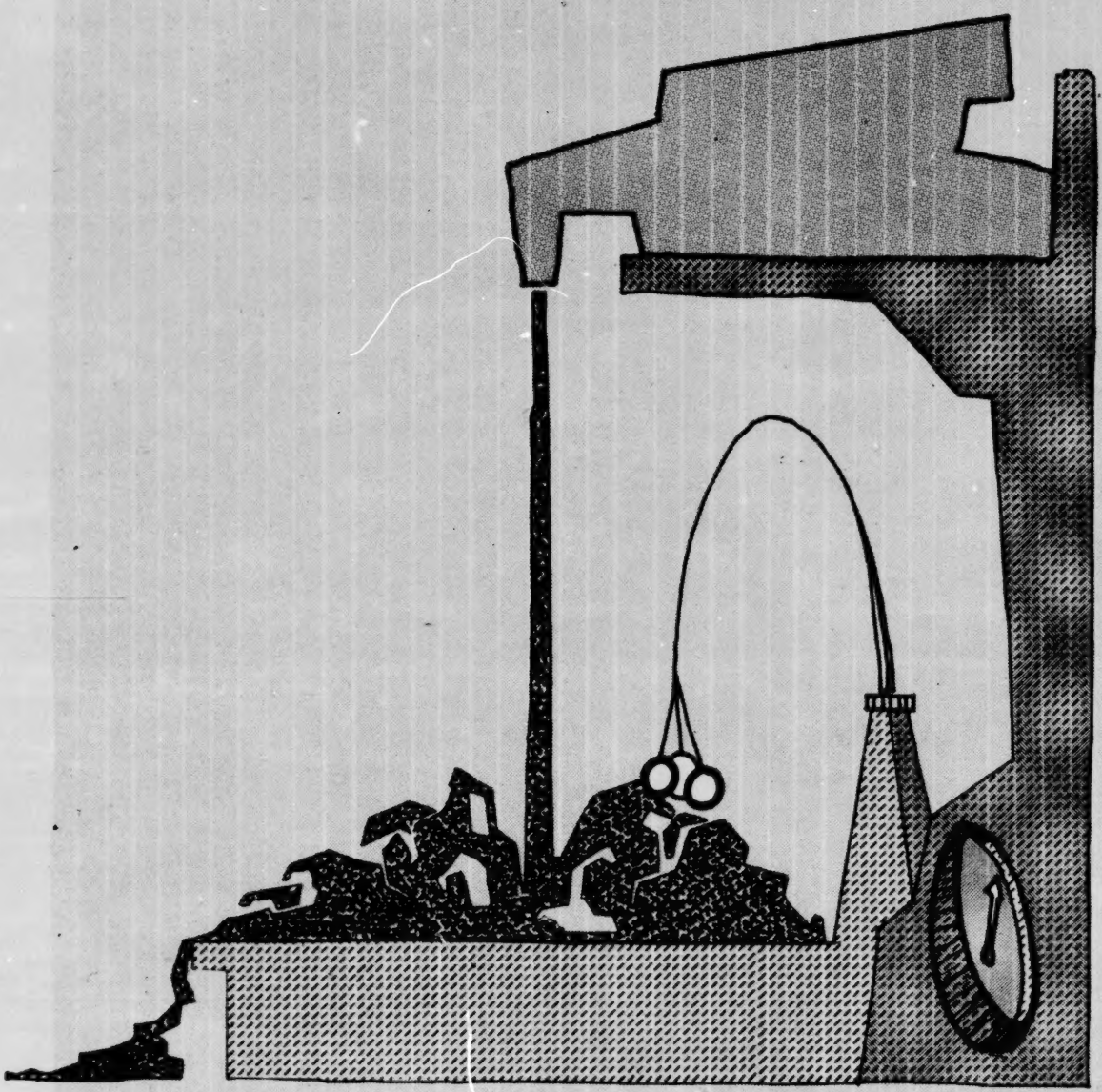


IMPACT-UNITS OF MEASURE

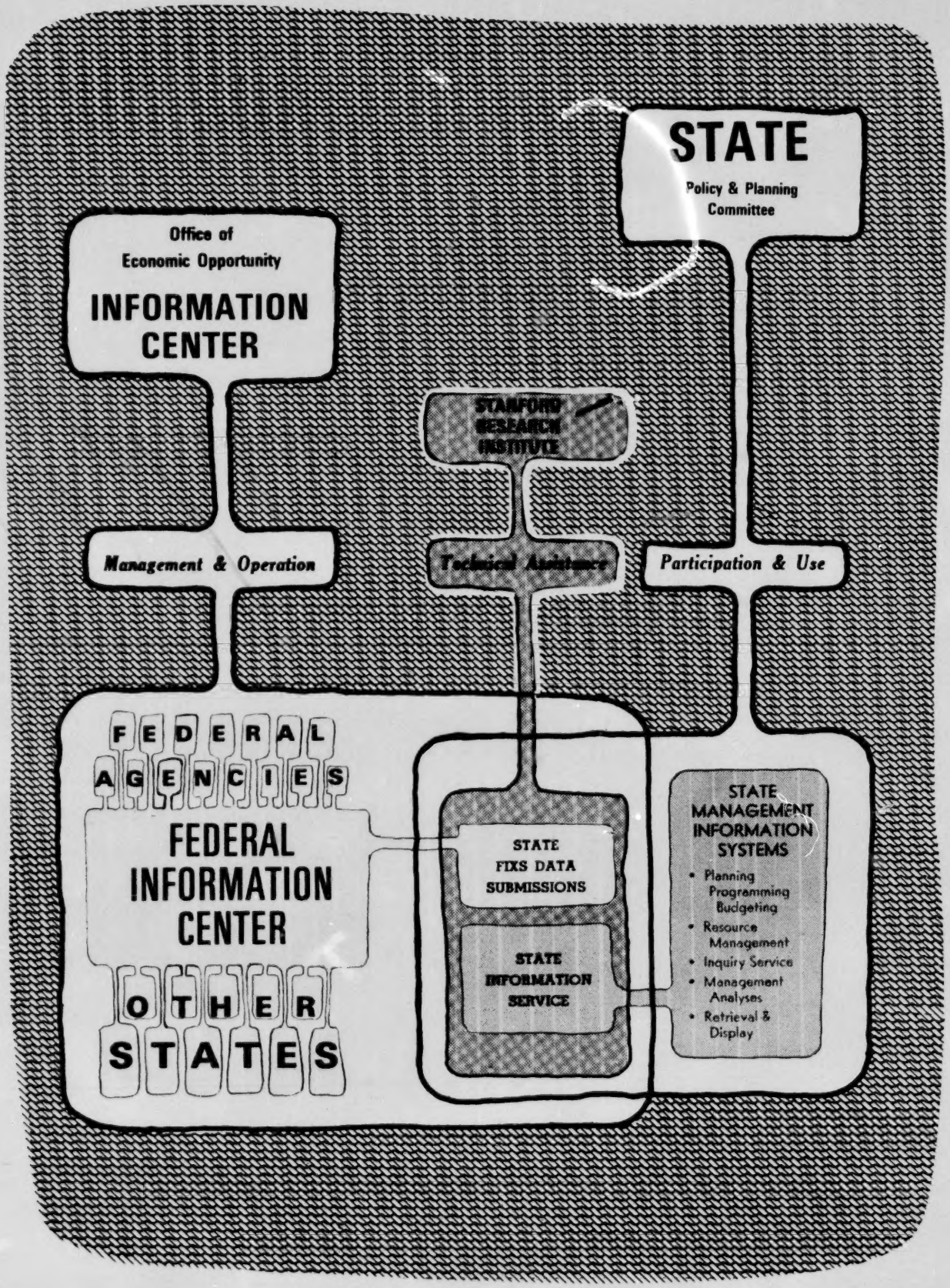
. . . the producers of intangible services . . . often have great difficulties in identifying their output . . . How can we calculate the output of a foreign ministry, of a research department, of scientific research . . . or of a judicial or legislative body?

Bertram M. Gross, Social Systems Accounting, *1966*

OUTPUT UNITS OF MEASURE

FIXS assesses output of a particular program in units of measure of beneficiaries or benefits. For example, beneficiaries might be individuals, families, or communities; benefits might be buildings, houses, dams, meals, or clothing. The unit of measure is indicated in the program definition and is reported quantitatively (i.e., number of benefit units or beneficiaries) and quarterly, along with expenditures.

As many as four units of measure can be reported for each program, in recognition of the fact that the programs may be evaluated from several viewpoints. For instance a college study grant program may be assessed in terms of number of attendees, number of graduates, number of class hours, or increased earning of those who complete the course.


STATE
Policy & Planning Committee
Office of Economic Opportunity
INFORMATION CENTER
STANFORD RESEARCH INSTITUTE
Management & Operation
Technical Assistance
Participation & Use
FEDERAL AGENCIES
FEDERAL INFORMATION CENTER
OTHER STATES
STATE FIXS DATA SUBMISSIONS
STATE INFORMATION SERVICE
STATE MANAGEMENT INFORMATION SYSTEMS
• Planning Programming Budgeting
• Resource Management
• Inquiry Service
• Management Analyses
• Retrieval & Display

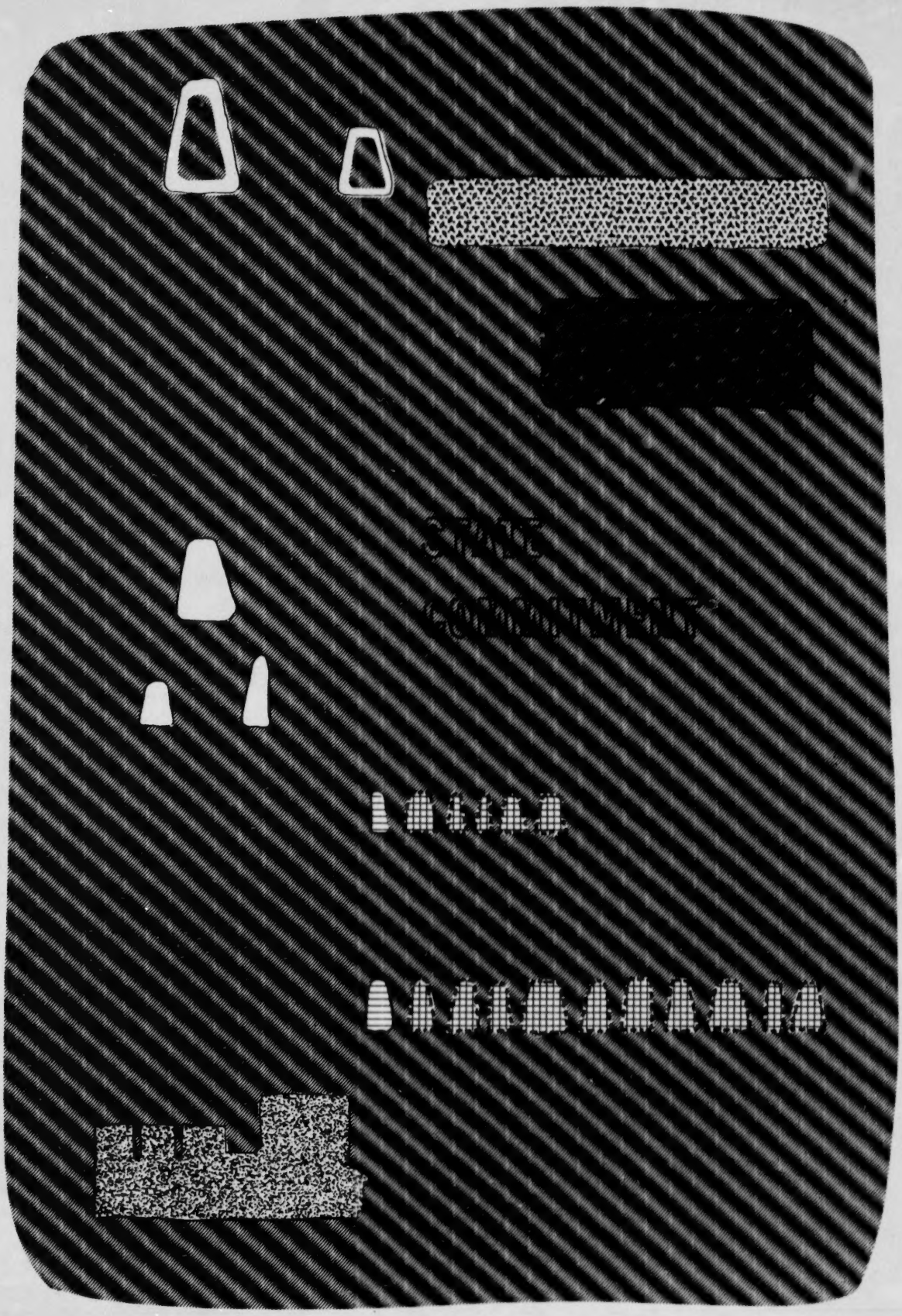
OEO-STATE PARTNERSHIP IN FIXS

Exercising its congressional mandate to help states establish information centers, OEO is now developing FIXS. This effort entails working closely with selected state governments to expand the FIXS data base from programs with a strict antipoverty orientation to include all programs that bear on socioeconomic assistance provided by federal, state, and local governments. Sometimes this effort may entail designing an entire collection and processing system in a state; sometimes it may be a demonstration of the capability of a state to participate in FIXS; and at still other times it may be only a redirection of existing procedures to permit states to make better use of this information.

The OEO Information Center is spearheading this effort in the belief that, if the states have better information available, they can plan and budget better. At the same time, information collected by the states can be shared or exchanged with the federal government and, when appropriate, with other states. OEO provides technical assistance through Stanford Research Institute. SRI analysts work full-time on the project in the states to assist governors and their staffs. For their part, the states are expected to provide support in terms of personnel and facilities.

I see a whole new climate developing in our state governments, and the state may increasingly become a true partner with local governments and the federal government in grappling with community problems.

Robert C. Weaver, 1965



State governments are here to stay. With fair apportionment of their legislatures some states will actively enter into the mainstream of government and undertake programs to positively assist all their residents in the pursuit of the better life. Where the state is ready and willing its help should be welcomed. . .

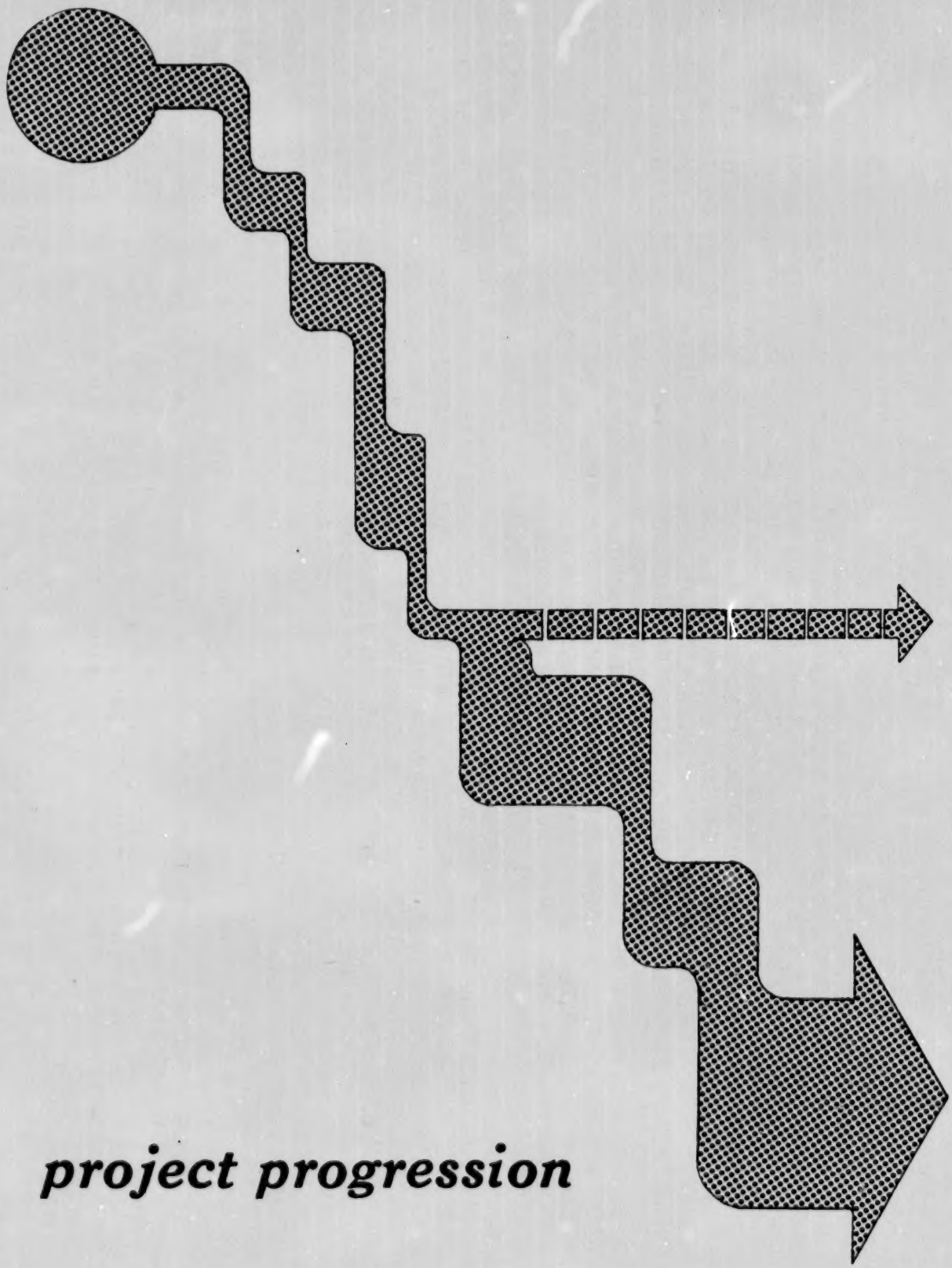
John J. Gunther, U.S. Conference of Mayors, 1965

HOW CAN A STATE HELP INITIATE FIXS PARTNERSHIP?

The technical assistance teams sent to the states by OEO have approximately four months in which to work with a state government. So that they can accomplish as much as possible for the state during this time, it is important that the states provide sufficient support to maximize the team's efforts. To this end, OEO endeavors to make firm agreements with a state beforehand, detailing personnel to be assigned, services to be performed, working space to be provided, and so on.

Ideally, the state is asked to assign to the project a full-time staff analyst, a full-time secretary, and a junior analyst. A member of the governor's staff should be available part-time to provide liaison with the executive office, and a member of the legislative council should be available part-time to provide liaison with legislative policy and technical committees. Part-time support is required from the state's budget analysts or fiscal officers to provide the equivalent of one man for coordinating with the state budgeting, fiscal, and accounting functions. Also, part-time support is required from the various agencies and departments to provide the equivalent of one man for liaison with the state agencies when defining state programs.

In addition, the state should have an electronic data processing capability and should provide the combined state-OEO team with enclosed office space, furniture, parking space, office supplies, and such services as telephones, document reproduction, and copying facilities.



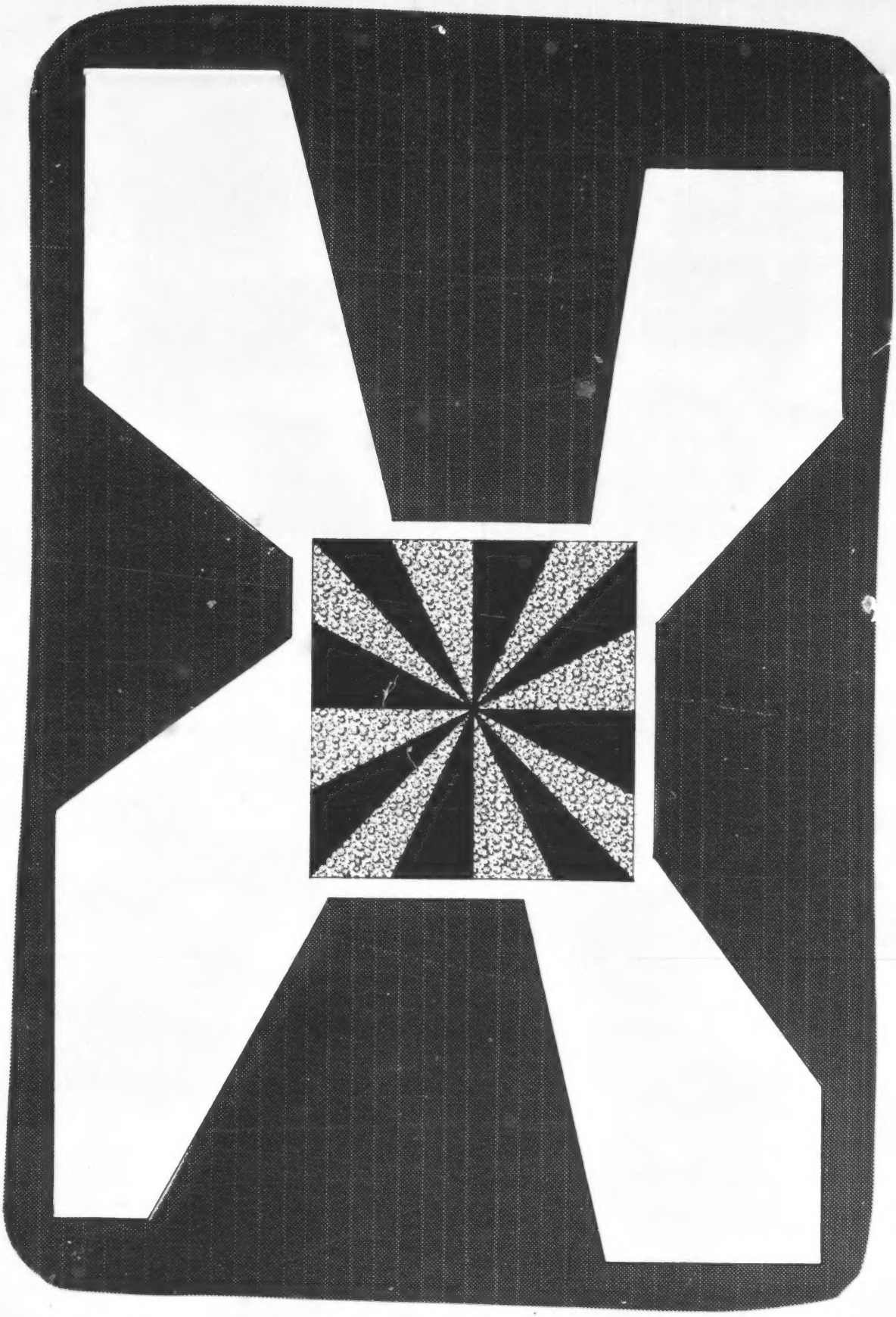
project progression

FIXS LIAISON WITH THE STATES

The technical assistance teams' approach varies from state to state, but generally a team addresses itself to five basic tasks:

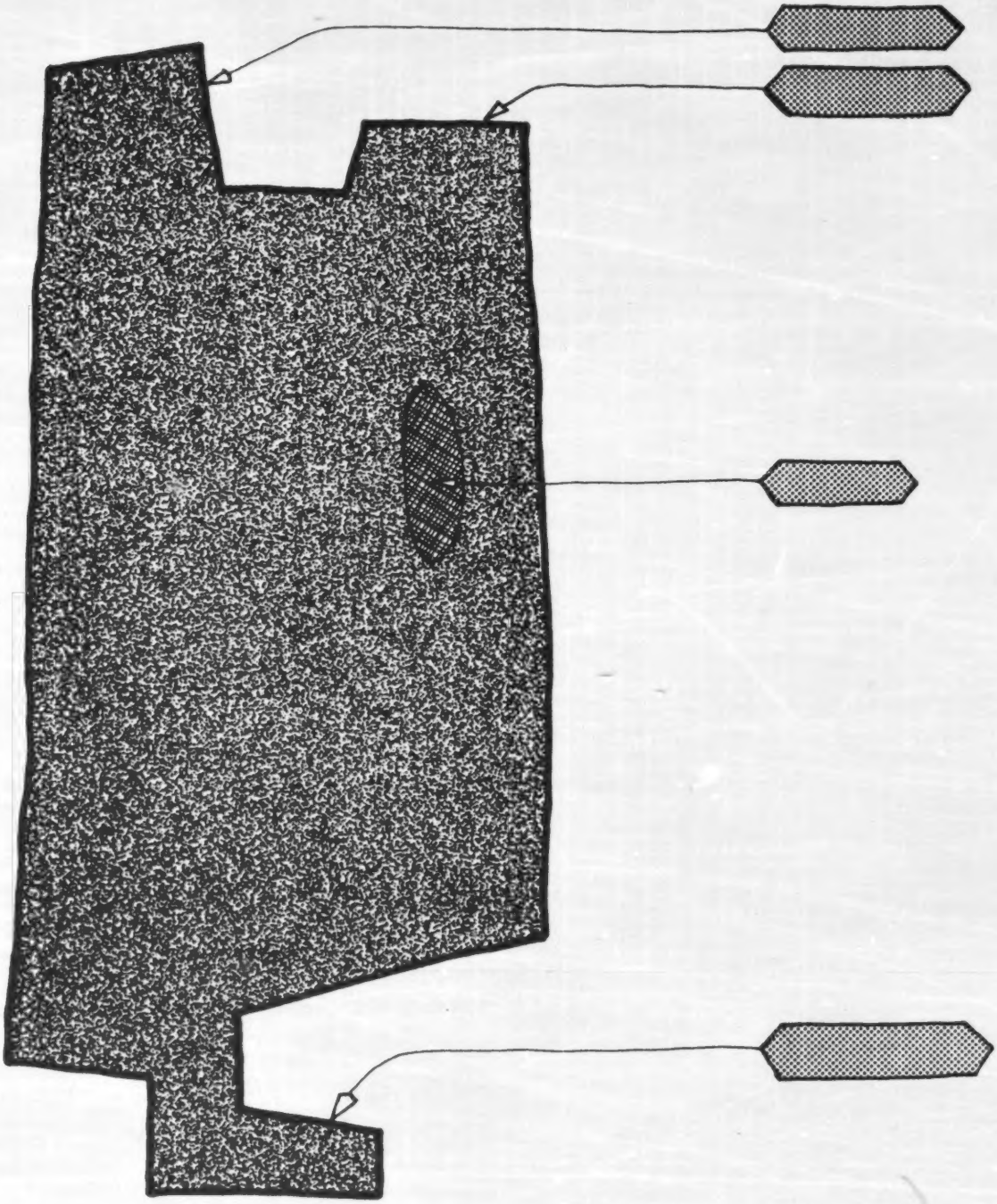
- Preliminary survey of the state and orientation of the team
- Analysis of state government operations, fiscal procedures, and information requirements
- Identification, definition, and compilation of state and federal programs
- Design of procedures for routine collection, storage, and processing of FIXS data
- Test of system to evaluate procedures and estimate the state cost to run an ongoing system

Some of the activities begun while the SRI technical assistance team is in the state must be completed after the team leaves. These activities chiefly involve extending FIXS to include *all* agencies in the state, refining methods for recording expenditures by geographic distribution, and establishing better units of measure to assess program accomplishment.



FIXS IS NOT . . .

- . . . An investigation of fiscal accountability in the states.
- . . . A one-time effort to survey state programs for a short-term application. It is the beginning of an ongoing information collection and reporting process to be operated by the state.
- . . . An information system exclusively oriented to antipoverty programs. Its scope has been extended to include *all* federal agencies and programs.
- . . . A programming, planning, and budgeting system—but its data file can be developed into one.
- . . . Exclusively an OEO system. As operator of FIXS, OEO acts as an executive agency for the Bureau of the Budget.



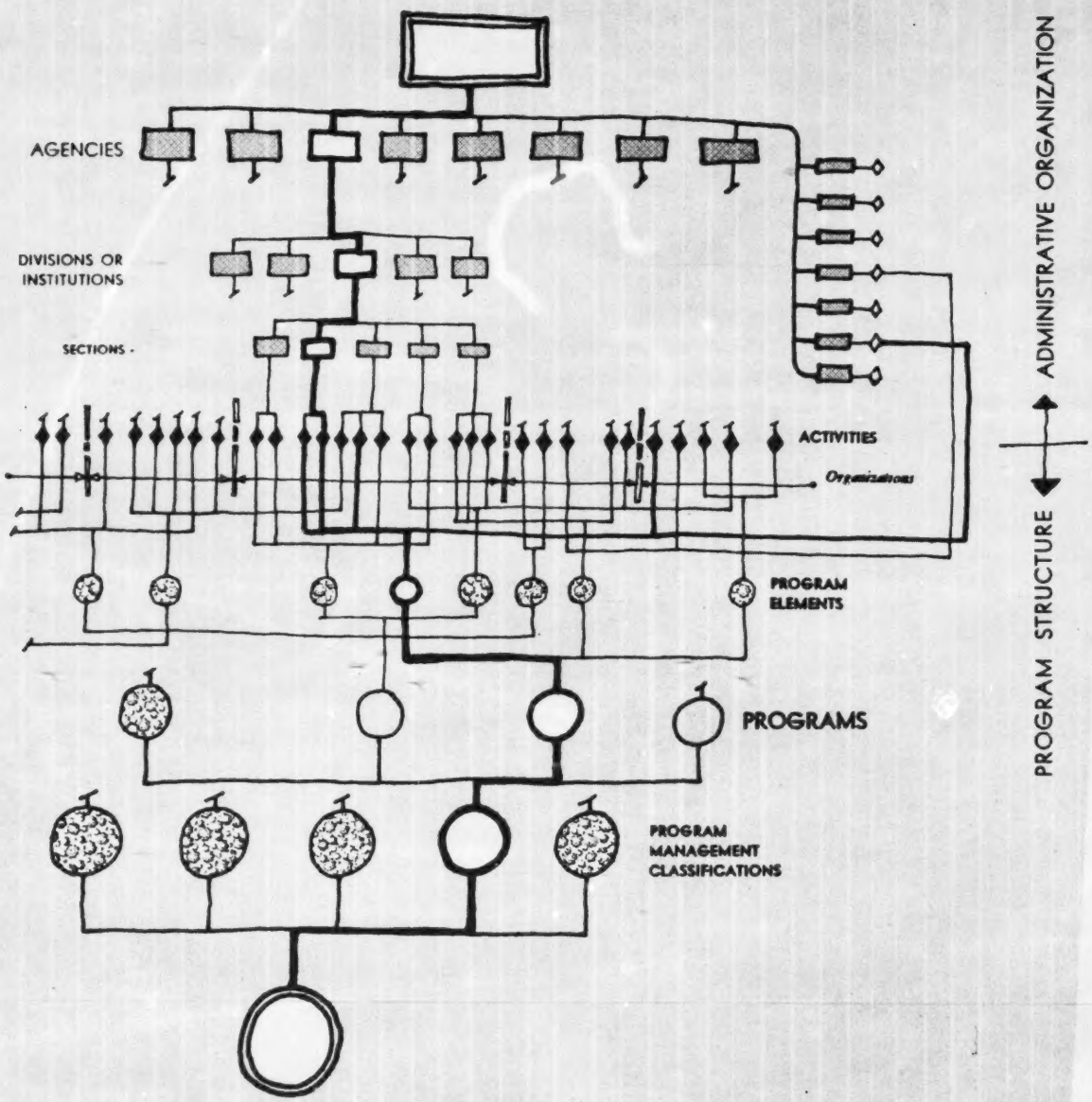
DEFINING PROGRAMS

When a technical assistance team tries to define programs in a state, it distinguishes between fiscal accountability by object and fiscal accountability by function. The team is guided by the examples of programs in the *Catalog of Federal Assistance Programs,* although even many of these are not proper reporting categories at the present time. The problem is to find the appropriate category level for reporting fiscal data. A description of each reporting category, including statements of program objectives, is an indispensable part of program structural preparation.

A program may be defined as an activity or group of activities with specific functional goals, lasting at least a year. Since it is functional rather than administrative, a program may cross organizational lines. It should have a substantial impact on a significant number of citizens of a state, and the service it provides should be clearly distinguishable.

This definition is not universally accepted, and it is doubtful that a strict or rigid definition of "program" ever will be. In the real world of state governments, we must define programs by the way people provide services, organize activities, and classify information on which they make decisions.

OPERATIONS



ANALYSIS

The structure of any social system consists of people and non-human resources grouped together into subsystems that interrelate among themselves and with the external environment, and are subject to certain values and a central guidance system that may help provide the capacity for future performance.

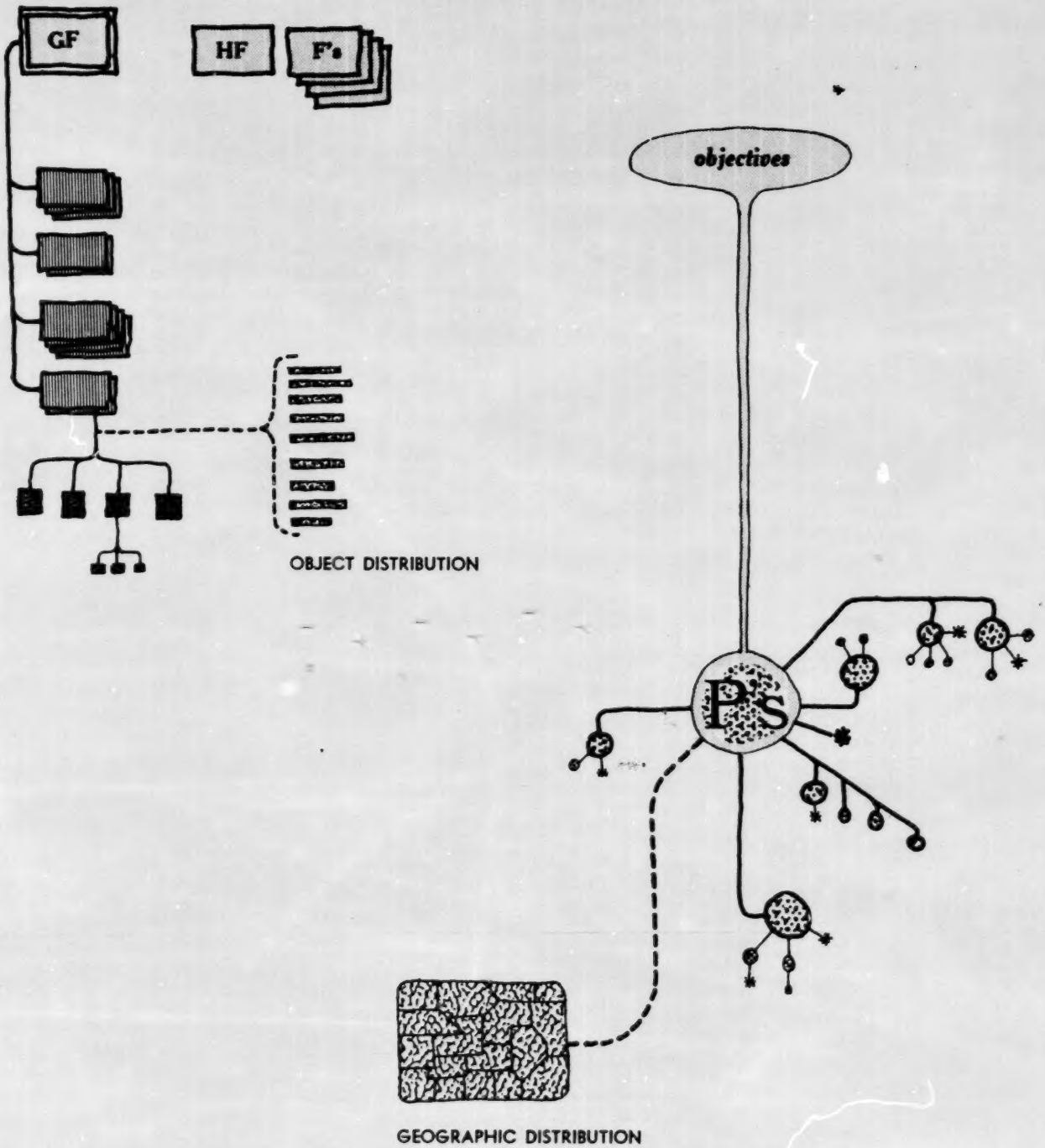
Bertram M. Gross, Social Systems Accounting, *1966*

WEAVING FIXS INTO THE FABRIC OF GOVERNMENT

A major difficulty in establishing a FIXS capability in state governments is that the system must be superimposed on a complex and often rigid pattern of human beings, groups, agencies, and organizations. Any government is a social system, and every social system is an open one—that is, certain activities cut across the boundaries of formal organization and connect the system with its external environment. The condition of any social system can be expressed in terms of structure or in terms of performance.

The interrelationship of structure and performance is illustrated on the opposite page. In the upper half of the illustration are organizational entities—the executive department, its cluster of line departments, the cluster of divisions within a department, and the cluster of administrative sections within a division. In the bottom half of the illustration, beginning with the smallest circles (program elements) the activity structure descends through larger levels of activity classification—programs, program areas, and major goals. The common boundary between the administrative structure and the program structure is the diamond-shaped array of activities.

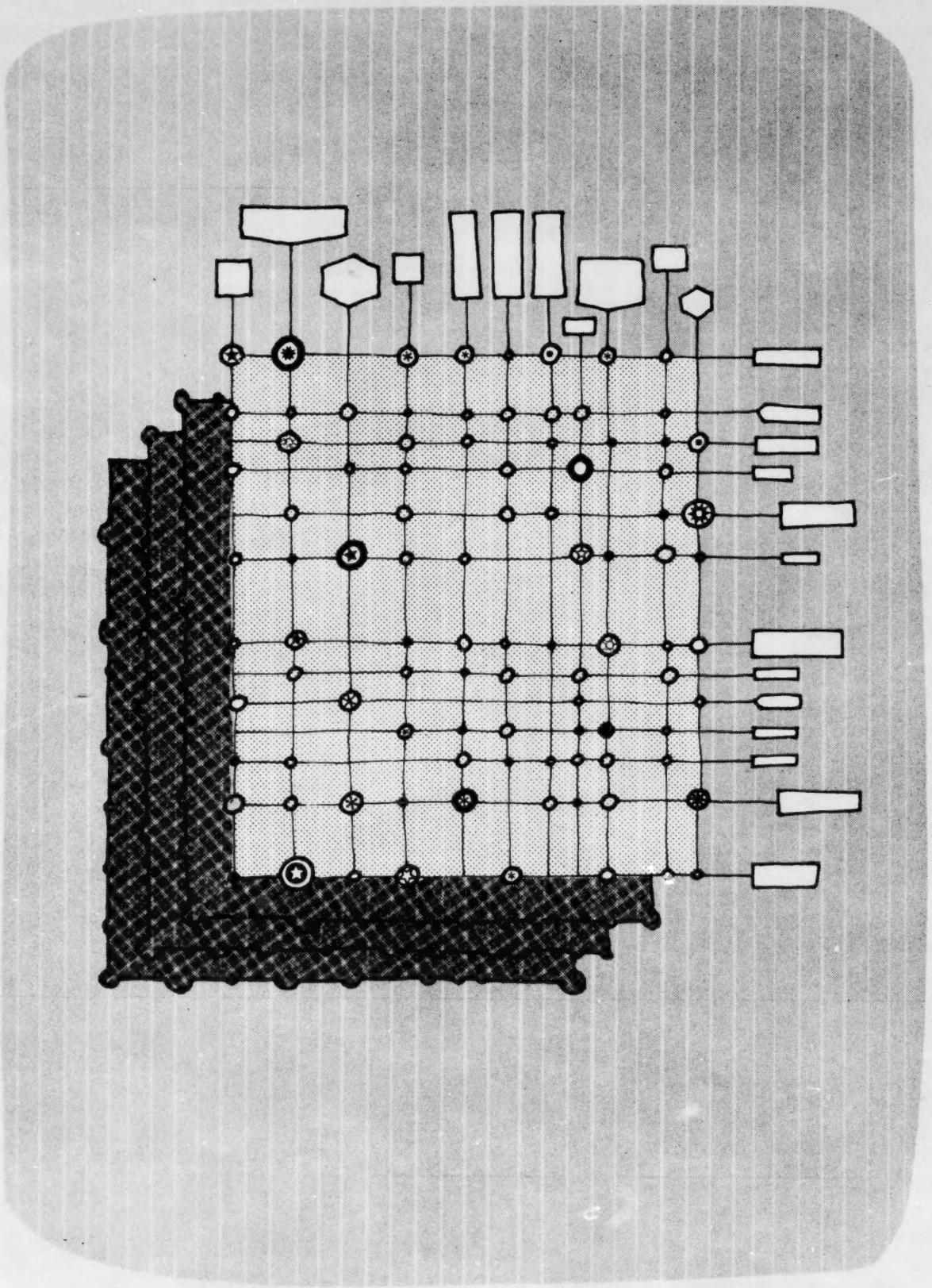
The important point illustrated on the opposite page is that the organizational structure is not mirrored by the program structure. The program structure lends itself to evaluation of performance. If organizational units can break down expenditures according to activities, these activities can be selected and aggregated into reportable categories. The program structure therefore provides a reasonable and useful set of general categories into which all conceivable aspects of interrelating resources and activities can somehow be fitted.


GF
HF
F's
objectives
P's
OBJECT DISTRIBUTION
GEOGRAPHIC DISTRIBUTION

FISCAL ACCOUNTABILITY VERSUS PROGRAM QUANTIFICATION

In most states, the law requires fiscal accountability based on the traditional line-item accounting method, in which there are general funds, highway funds, and many other funds. These funds are broken down into accounts and accounts are divided among activities or functions whose chief distribution is by object class such as personal services, equipment, current expenses, postage, repairs, and transportation. It is difficult to take fiscal data recorded and aggregated according to line items and then to reaggregate them according to activities, projects, programs, and functional objectives whose chief distribution is by geographic area.

Consequently, in implementing FIXS in the states, the technical assistance team must distinguish between the two types of financial record-keeping and yet somehow superimpose the FIXS data collection task on the system of line-item fiscal accountability without disrupting or subverting either process. A state's participation in FIXS can sometimes be hindered by strict adherence to the mistaken belief that both objectives can be served by a single set of records. Major changes in the state's management and processing of fiscal information may sometimes be required to achieve a capability for participating in FIXS, but it will always be necessary to accept and understand this distinction between fiscal accountability and management responsibility.



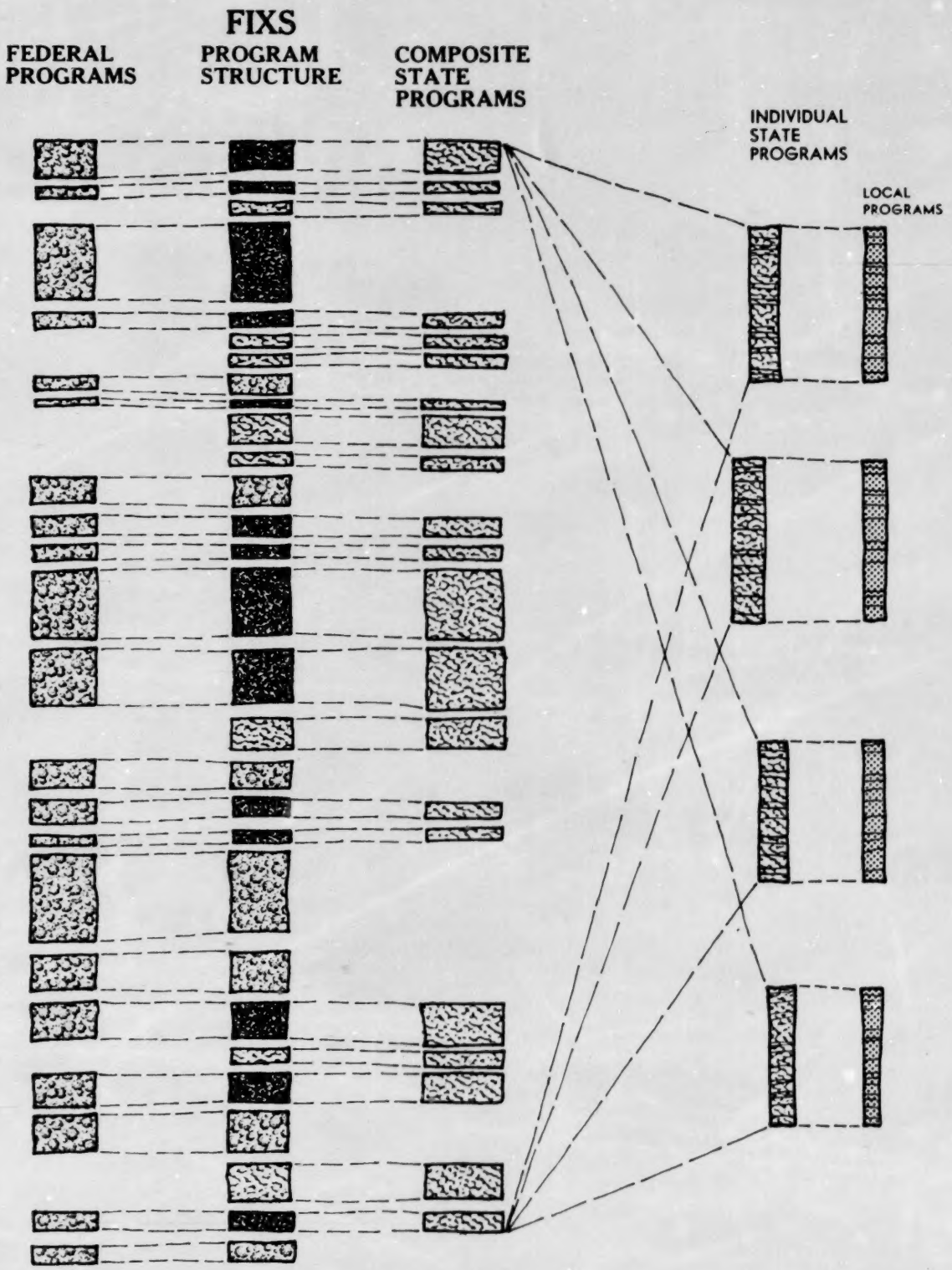
THE DATA BANK

FIXS anticipates future changes in the kinds of questions it is designed to answer. It lends itself to the storage of data so that they can be aggregated in many ways on different levels. We may wish to report expenditures with or without imputed charges for capital costs, with or without allowances for training, and with or without contributions for retirement. In other words, we may wish to report an expenditure in terms of *total* resources—physical capital such as land and buildings and social capital such as trained personnel—or in terms of specific single resources, depending on the kind of analysis we want to make. The ultimate goal of information feedback that FIXS hopes to achieve is the ability to aggregate data for all the possible analyses that can be made concerning resource expenditures.

The hope is that FIXS will ultimately enable us to cope with the constant changes in society's mutually constraining and often conflicting goals. This means that the FIXS storage system must be capable of accepting and using information that may be qualitative and intuitive, rather than restricting ourselves to accepting only "hard data" which may be of limited significance.

We want all the facts which help us to understand how a nation has grown and organized itself . . . not only the nature and actions of the central government, but also those of local governments, down to their minutest ramifications. . .

Herbert Spencer, The Study of Sociology, *1914*


FIXS
FEDERAL PROGRAMS
PROGRAM STRUCTURE
COMPOSITE STATE PROGRAMS
INDIVIDUAL STATE PROGRAMS
LOCAL PROGRAMS

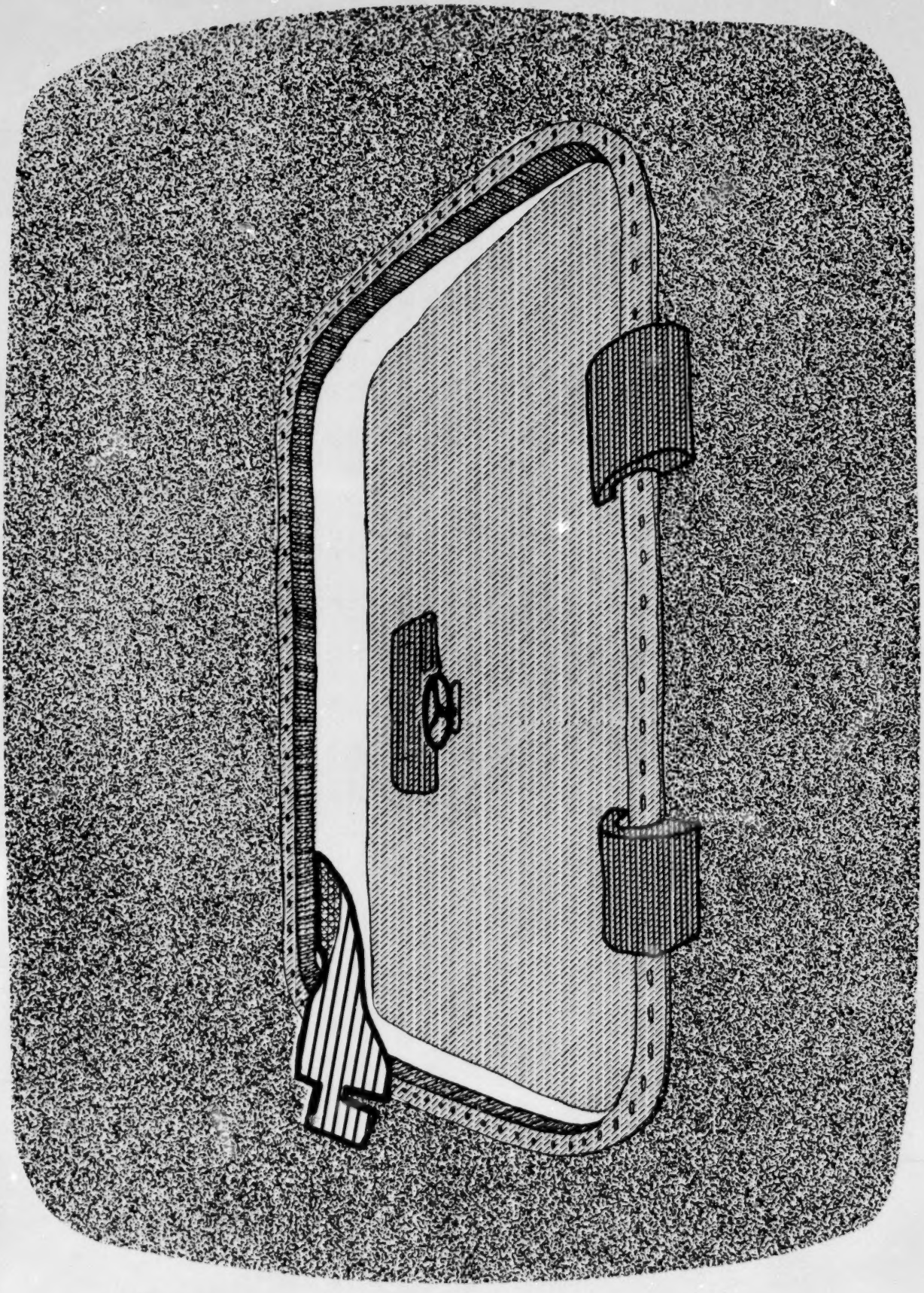
THE STANDARD PROGRAM ARRAY

Eventually the *Catalog of Federal Assistance Programs* will evolve into a more complete and comprehensive document describing many more federal programs than it does now. The FIXS *Summary Reports* will also evolve into a more comprehensive array of federal reporting categories, so that the *Summary* and the *Catalog* will very nearly resemble each other in terms of program definition. This evolution of program definition will result in the creation of a standard array or "spectrum" of federal programs, which will include a standard "band," so to speak, or diagnostic difinition of any program administered by any federal agency.

By the same process, as we learn more about the activities of states we will be able to evolve a standard "spectrum" of state programs as well, which will include a standard "band" or diagnostic for any program administered by any state. With these two arrays—one for federal, the other for state programs—we will have a basis for comparison of intergovernmental activities and a basis for standardizing definitions of these activities.

For example, each state could compare its activities to the standard state spectrum to ascertain a proper uniform definition of an activity. No state will have all the programs shown in the composite state spectrum, but this spectrum will have all the programs of all the states. Likewise, no federal agency will have all the programs in the composite federal spectrum, but this spectrum will have all the programs of all the federal agencies. For example, the state of Minnesota might have a program for Indian mound restoration and research, which may coincide with the state spectrum band called archaeological research, but which does not correspond with any band or program on the federal spectrum; we may therefore conclude that this program is not federally supported anywhere. In another example, West Virginia's cooperative ground water research program might coincide with the same program band in the state spectrum which has an analog in the federal spectrum as well; we may therefore conclude that the program is jointly funded by the federal government and the state of West Virginia and probably jointly funded in other states as well.

By merging the federal and state arrays of programs, we can produce a composite spectrum of *all* possible programs to be considered in the FIXS reporting system.



WE CAN'T ARREST CHANGE . . .

There are so many aspects of the program structure of a FIXS reporting system that we will probably never be able to give a completely definitive description of all of them. Tight control of some programs can usually be achieved only at the cost of diminished control over others, but total control can never be accomplished. New programs will always be created through subdivision and combination of activities and goals. Ideally, the program structure of FIXS would be a rationale for meeting, interpreting, and living with changes in the physical and social environments around us.

Let the great world spin forever down the ringing grooves of change.

Alfred, Lord Tennyson, Locksley Hall

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